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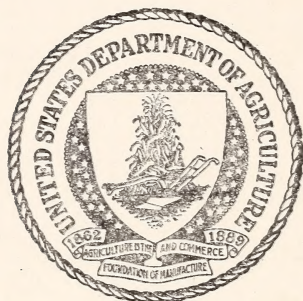




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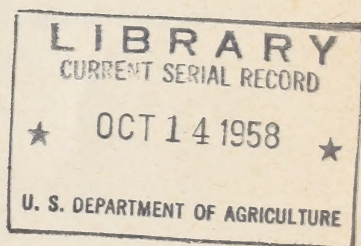
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September 1958

HYMENOPTERA OF  
AMERICA NORTH OF MEXICO  
SYNOPTIC CATALOG  
(Agriculture Monograph No. 2)

FIRST SUPPLEMENT

Prepared by the staff and collaborators of the Hymenoptera Unit,  
Insect Identification and Parasite Introduction Laboratories,  
Entomology Research Division, Agricultural Research Service,  
under the direction of  
KARL V. KROMBEIN



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F. X. Williams (distribution of California Sphecidae)  
E. O. Wilson (distribution and biology of Formicidae)  
I. H. H. Yarrow (information on certain Smith types of Aculeata in British Museum)

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# Hymenoptera of America North of Mexico—Synoptic Catalog

(Agriculture Monograph No. 2)

## FIRST SUPPLEMENT

### INTRODUCTION

The "Hymenoptera of America North of Mexico—Synoptic Catalog" was published on July 11, 1951, as Agriculture Monograph No. 2. It contained references to the literature published through 1949, and to a few papers that appeared during 1950. This catalog immediately proved to be an indispensable aid to taxonomists working on Hymenoptera and to field entomologists concerned with insects in this important order. It was at once apparent that the volume of research being done in the Hymenoptera would require the issuance of periodic supplements, if this catalog was to maintain its maximum usefulness. This is the first of such supplements, and covers all the literature published from 1950-1951 through 1956.

### SCOPE

Information of the following nature has been included in the Supplement: Corrections of errors in the Catalog; omissions from the Catalog; significant extensions in geographic range; new host, prey, or flower-visiting records; citations to new papers dealing with biology or taxonomy; citations to categories described since completion of the manuscript for the Catalog; generic or sub-generic transfers; citations to synonymy published since completion of the manuscript for the Catalog, and some previously unpublished synonymy; and changes in rank of the included forms.

A list of the new names proposed in this Supplement will be found on page 270.

### FORMAT

Insofar as possible we have followed the sequence used in the Catalog. That is, the categories above specific rank are arranged in systematic order, while those of specific or infraspecific rank are arranged alphabetically under the generic or sub-generic heading. Recent information has indicated that a few major groups were incorrectly placed in the Catalog, or were given an inappropriate status. These changes are noted in the proper place in the text, with appropriate cross reference where this is necessary.

The treatment at the specific or infraspecific level, for all forms catalogued here for the first time, consists of a heading giving the specific name preceded by an asterisk, describer's name, distribution, and host, prey, or flower-visiting records. Below this are bibliographic citations to the original description and to any



synonyms, and to any additional papers on biology or taxonomy, as in the following example:

\**titusensis* Mitchell, Fla. (Titusville, Tampa).

*Colletes titusensis* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 237, figs. 16, 17. ♂.

Taxonomy: Stephen, 1954. Kans. Univ. Sci. Bul. 36: 497, fig. 84. ♀.

Corrections of errors in the Catalog, extensions of geographic range, or new host, prey, or flower-visiting records are given by citing the specific or infraspecific name and author followed by the pertinent information, as in the following example:

*caerulescens subcorticalis* (Walsh). Prey: *Phidippus audax* (Hentz). Remove *nigrella* (Banks) and *nanella* (Banks) from syn.

The citation of new papers dealing with taxonomy or biology is accomplished by listing the specific or infraspecific name and author, and a separate reference beneath this heading to the paper and its field, as in the following example:

*fuscatus aurifer* Saussure.

Biology: Snelling, 1954. Kans. Ent. Soc. Jour. 27: 154.

The transfer of a form from one genus or subgenus to another is recorded by double entries. The entry under the genus from which it is being transferred consists of a specific heading in bold-face italics followed by a statement giving the genus to which it is being transferred. The entry under the genus to which it is being transferred consists of the specific heading in bold face followed by a statement of the genus from which it is being transferred and a citation of the authority for the transfer. The two entries covering the transfer of *hendersoni* Cockerell from one subgenus of *Osmia* to another are as follows:

*hendersoni* Cockerell. Transf. to *Osmia* subg. *Melanosmia*, p. 1165.

*hendersoni* Cockerell. Transf. from *Osmia* subg. *Acanthosmioides*, p. 1165. (teste White, 1952. Kans. Univ. Sci. Bul. 35: 221).

The synonymy of species or infraspecific categories considered to be valid in the Catalog is also effected by double entries. One entry gives the formerly valid specific name in bold-face italics followed by a statement that it is a synonym of another species. The other entry gives the name of that other species in bold face, and beneath this, in synonymy position, a citation of the new synonym using the combination given in the Catalog, and a parenthetical statement as to the authority for the transfer. The synonymy of *Aporus (Aporus) hermes* Bradley under *niger* (Cresson) would be shown by the following two entries:

*hermes* Bradley. Syn. of *niger* (Cresson).

*niger* (Cresson).

*Aporus (Aporus) hermes* Bradley (syn. by Evans, 1956. Ent. News 67: 6).

Changes in rank are of two main types, the reduction of species to infraspecific rank and the raising of categories from infra-specific to specific rank. Both changes are achieved by double entries. One entry gives the former specific or infraspecific name in bold-face italics followed by a statement of its present status. The other entry consists of the present specific or subspecific designation in bold face and author, followed by the phrase,

"changed status;" beneath this in synonymy position is the combination used in the Catalog and a statement as to the action taken and authority. The reduction of *Colletes crawfordi* Swenk to subspecific rank is accomplished by the following two entries: *crawfordi* Swenk. A subsp. of *texanus* Cresson.

*texanus crawfordi* Swenk, changed status. North. Tex. On flowers of *Physalis*.

*Colletes crawfordi* Swenk. Reduced to subsp. rank (*teste* Stephen, 1954.

Kans. Univ. Sci. Bul. 36: 450).

There are also some cases of synonymy at the generic and subgeneric levels. Names not listed in the Catalog are preceded by an asterisk and cited in synonymy position under the appropriate generic or subgeneric heading together with their genotype designations. For names recognized as valid in the Catalog, the synonymy is effected by double entries, as discussed above, at the specific level.

Similarly, a change in rank at the generic or subgeneric level would be shown by double entries under the appropriate generic or subgeneric headings.

Some revisional papers have been published which assign the component forms to several subgenera, whereas the Catalog has no such division into subgenera. In order to minimize the number of changes required we are indicating this assignment merely by inclusion of the subgeneric name in parentheses in bold-face italics in the specific heading, as in the following example in the genus *Perdita*:

*lacteipennis canadensis* Crawford. Utah. (*Cockerellia*)

## ABBREVIATIONS AND SYMBOLS

The abbreviations and arrangement of titles of journals used in this work are essentially those recommended in United States Department of Agriculture Miscellaneous Publication 337, issued in 1939. The standard abbreviations are used for the various States and Provinces. Certain other abbreviations and symbols are explained as follows:

\*—used before a generic, specific, or infraspecific heading to indicate a category not included in the Catalog.

(!)—*lapsus* or misspelling of a scientific name.

"♂" = ♀ or "♀" = ♂—incorrect sex determination.

♂ (♀ misdet.) or ♀ (♂ misdet.)—only one of sexes described belongs to the species catalogued.

O—an insect gall, when used in same position in citation as sex signs.

changed status—used after a specific or infraspecific heading to indicate a rank different from that accorded that form in the Catalog; this is not necessarily the same as new status.

emend.—emendation.

n. comb.—new combination; used after a specific or infraspecific heading to indicate a new generic assignment.

n. name—new name; used after a specific or infraspecific heading to indicate a new substitute name for a homonym;

used after bibliographic citation to indicate a substitute name proposed earlier for a homonym.

n. status—new status; used where a form is here accorded a rank different from that which it previously had.

n. syn.—new synonymy; used after generic or specific bibliographic citations to indicate a new synonym, followed by a parenthetical statement giving the authority and basis for the action.

preocc.—preoccupied; used after a generic or specific citation to indicate a homonym.

Abbreviations for the faunal zones and their divisions are as follows:

Bor.—Boreal

Canad.—Canadian

Huds.—Hudsonian

Transit.—Transition

Austr.—Austral

U. Austr.—Upper Austral

L. Austr.—Lower Austral

Alleghan.—Alleghanian

Austrorip.—Austroriparian

Carol.—Carolinian

Sonor.—Sonoran

## Order HYMENOPTERA

Taxonomy: Muesebeck, Krombein, Townes *et al.*, 1951. U. S. Dept. Agr., Agr. Monogr. 2, 1,420 pp., 1 map (catalog of species north of Mexico).—Michener, 1953. Kans. Univ. Sci. Bul. 35: 993-995 (larvae, key to certain families).

Evolution: Wheeler, 1919. Amer. Phil. Soc. Proc. 58: 1-40 (parasitic Aculeata).

## Suborder SYMPHYTA

### Superfamily MEGALODONTOIDEA

#### Family XYELIDAE

Genus **MEGAXYELA** Ashmead, p. 7

*aviingrata* (Dyar). Hosts: *Carya* sp. and *Juglans cinerea*.

#### Family PAMPHILIIDAE

Genus **ACANTHOLYDA** A. Costa, pp. 7-9

\**Acanthocnema* A. Costa, 1859. *In* O. Costa, Fauna Reg. Napoli, Imen., v. 3, p. 2. No included species.

Suppressed by Internatl. Comn. Zool. Nomencl., Opinion 290, Oct. 1954.

*zappei* (Rohwer). Hosts: *Pinus* spp.

Genus **CEPHALCIA** Panzer, pp. 9-10

\**marginata* Middlekauff. Que., Mass., N. Y., Pa., Va.

*Cephalcia marginata* Middlekauff, 1953. Pan-Pacific Ent. 29: 133. ♂ ♀.

Biology: Daviault, 1956. Canad. Ent. 88: 488-492. Morphology: Rivard, 1955. Canad. Ent. 87: 382-399.

Genus **NEUROTOMA** Konow, p. 10

*fasciata* (Norton). Fla.

*inconspicua* (Norton). Ark., Kans.



## Superfamily TENTHREDINOIDEA

## Family PERGIDAE

Genus ACORDULECERA Say, pp. 12-13

*dorsalis* Say. Hosts: *Quercus* spp.

## Family ARGIDAE

Genus ARGE Schrank, pp. 13-14

*Cryptus* Jurine, 1801. Suppressed by Internatl. Comm. Zool. Nomencl., 1936, not 1939.*coccinea* (Fabricius). Host: Sumac.*humeralis* (Beauvois). Hosts: Poison ivy, poison sumac.*pectoralis* (Leach). Host: Delete *Salix*, add *Betula*.*\*ochropa* (Gmelin) (= *rosae*, authors not Linnaeus). Ontario, Europe, Middle East, Siberia. Hosts: *Rosa* spp.*Tenthredo ochropus* Gmelin, 1790. In Linnaeus, Syst. Nat., Ed. 13., v. 1, pt. 5, p. 2657.

Taxonomy: Malaise and Benson, 1934. Archiv für Zool. 26(A): 7-8, 13.

## Family CIMBICIDAE

Genus ZARAEA Leach, p. 17

*americana* Cresson.

Biology: Middlekauff, 1956. Jour. Econ. Ent. 49: 701.

Genus CIMBEX Olivier, pp. 17-18

*Crabro* Geoffroy, 1762. Hist. Ins. Paris, v. 2, p. 261. Suppressed by Internatl. Comm. Zool. Nomencl., 1936, not 1943. Publication declared unavailable for nomenclatorial purposes, *teste* Opinion 228, Internatl. Comm. Zool. Nomencl., April 1954.*Clavellarius* Olivier, 1789. Suppressed by Internatl. Comm. Zool. Nomencl., Opinion 216, March 1954.

## Family DIPRIONIDAE

Genus MONOCTENUS Hartig, pp. 18-19

The known hosts for *Monoctenus* larvae are *Juniperus* and *Thuja*.

Genus NEODIPRION Rohwer, pp. 19-21

Revision: Ross, 1955. Forest Sci. 1(3): 196-209.

*abbottii* (Leach). Ont. south to Fla., west to Wis. Hosts: *Pinus caribea*, *P. echinata*, *P. heterophylla*, *P. palustris*, *P. resinosa*, *P. taeda*.*Lophyrus Fabricii* Leach (syn. by Ross, 1955. Forest Sci. 1: 203).*Lophyrus americanus* Leach (syn. by Ross, loc. cit. supra).*Lophyrus rileyi* Cresson (syn. by Ross, loc. cit. supra).*Neodiprion abbottii* (!) Ross, 1955. Forest Sci. 1: 199.

Biology: Hetrick, 1956. Forest Sci. 1(3): 181.

*akhursti* (Norton). Syn. of *pini-rigidae* (Norton).*americanus americanus* (Leach). Syn of *abbottii* (Leach).*americanus banksianae* Rohwer. A subsp. of *pratti* (Dyar)*americanus dyari* Rohwer. Delete *maura* Rohwer from syn. *N. dyari* Rohwer is a syn. of *pratti pratti* Dyar.*americanus pratti* (Dyar). A subsp. of *pratti* (Dyar).*compar* (Leach). Que., N. B., south to Ga. Hosts: *Pinus banksiana*, *P. resinosa*.

- \***deleoni** Ross. Wash. Host: *Abies grandis*.  
*Neodiprion deleoni* Ross, 1955. Forest Sci. 1: 200, 205. ♂ ♀.
- \***demoides** Ross. Calif. Host: *Pinus albicaulis*.  
*Neodiprion demoides* Ross, 1955. Forest Sci. 1: 201, 205. ♂ ♀.
- \***eduliculus** Ross. Colo., Utah. Host: *Pinus edulis*.  
*Neodiprion eduliculus* Ross, 1955. Forest Sci. 1: 201, 206. ♂ ♀.
- excitans** Rohwer. Eastern, west to Tex. Hosts: *Pinus echinata*, *P. rigida serotina*, *P. taeda*.  
*Neodiprion (Neodiprion) excitans* Rohwer, 1921. Erroneously placed as a syn. of *fabricii* (Leach) in Catalog (*teste* Ross, 1955. Forest Sci. 1: 202).  
*Neodiprion exitans* (!) Ross, 1951. Catalog, p. 19.  
 Biology: Hetrick, 1956. Forest Sci. 1(3): 182.
- fabricii** (Leach). Delete **pinus-rigida** Norton and **excitans** Rohwer from syn.  
*Lophyrus fabricii* Leach is a syn. of **abbottii** (Leach).
- gillettei** (Rohwer). N. Mex. Host: *Pinus scopulorum*.
- \***hetricki** Ross. Va. Host: *Pinus taeda*.  
*Neodiprion hetricki* Ross, 1955. Forest Sci. 1: 202. ♂ ♀.  
 Biology: Hetrick, 1956, Forest Sci. 1(3): 182.
- insularis** (Cresson). Delete from Catalog; a valid but extralimital species.
- lecontei** (Fitch). Hosts: *Pinus* spp.
- maurus** Rohwer. Southeast. Canada, Wis., Minn. Host: *Pinus banksiana*.  
*Neodiprion (Neodiprion) maura* Rohwer, 1918. Erroneously placed as a syn. of **americanus dyari** Rohwer in Catalog (*teste* Ross, 1955. Forest Sci. 1: 200).
- mundus** Rohwer. Ore. Host: *Pinus ponderosa*.
- nanulus** Schedl. Reduced to subsp. rank.
- \***nanulus contortae** Ross. Alta., Oreg. Hosts: *Pinus contorta*, *P. ponderosa*.  
*Neodiprion nanulus contortae* Ross, 1955. Forest Sci. 1: 201, 207. ♂ ♀.
- nanulus nanulus** Schedl, changed status. Southeast. Canada, Northeast. U. S., west to Man. and Wis. Hosts: *Pinus banksiana*, *P. resinosa*.  
*Neodiprion nanulus* Schedl. Reduced to subsp. rank (*teste* Ross, 1955. Forest Sci. 1: 207).
- nigroscutum** Middleton. Ont. Host: *Pinus banksiana*.  
*Neodiprion (Neodiprion) nigroscutum* Middleton, 1933. Erroneously placed as syn. of **rileyi** Cresson in Catalog (*teste* Ross, 1955. Forest Sci. 1: 203).
- pinetum** (Norton). Southeast. Canada, Northeast. and North Central U. S. Host: *Pinus strobus*.
- pini-rigidae** (Norton). Eastern. Host: *Pinus rigida*.  
*Lophyrus pinus-rigida* Norton. A valid sp., not a syn. of **fabricii** (Leach) (*teste* Ross, 1955. Forest Sci. 1: 201).  
*Lophyrus Akhursti* Norton. (Syn. by Ross, *loc. cit. supra*).
- pratti banksianae** Rohwer. N. B. west to Man., Mich., Wis., Minn. Hosts: *Pinus banksiana*, *Pinus* spp. Ref. and syn. in Catalog under **americanus banksianae** Rohwer.
- \***pratti paradoxicus** Ross. Mass., Conn. Hosts *Pinus banksiana*, *P. rigida*.  
*Neodiprion pratti paradoxicus* Ross, 1955. Forest Sci. 1: 199, 203. ♂ ♀.
- pratti pratti** (Dyar), changed status. Md., Va., Ind. Host: *Pinus taeda*.  
*Neodiprion americanus pratti* (Dyar) of Catalog. Incorrectly placed as subsp. of **americanus** (*teste* Ross, 1955. Forest Sci. 1: 203).  
*Neodiprion dyari* Rohwer. (Syn. by Ross, *loc. cit. supra*).  
 Biology: Hetrick, 1956. Forest Sci. 1(3): 183.
- rileyi** (Cresson). Delete **nigroscutum** Middleton from syn. **Lophyrus rileyi** is a syn. of **abbottii** (Leach).

*scutellatus* Rohwer. Host: "On fir."

*sertifer* (Geoffroy). Ill., Wis. Hosts: *Pinus echinata*, *P. resinosa*, *P. rigida*.

*Tenthredo sertifera* Geoffroy. In Fourcroy, 1785. Ent. Parisiensis, pt. 2, p. 378.

*swainei* Middleton. Northeast. U. S. southeast. Canada, Wis. Host: *Pinus banksiana*.

\**taedae linearis* Ross. Va., Ark., Tex. Host: *Pinus taeda*.

*Neodiprion taedae linearis* Ross, 1955. Forest Sci. 1: 199, 204. ♂ ♀.

\**taedae taedae* Ross. Va. Host: *Pinus taeda*.

*Neodiprion taedae taedae* Ross, 1955. Forest Sci. 1: 199, 204. ♂ ♀.

Biology: Hetrick, 1941. Jour. Econ. Ent. 34: 373, 377. (*N. americanum*). Hetrick, 1956. Forest Sci. 1(3): 183.

*tsugae* Middleton. B. C. Alaska.

\**ventralis* Ross. Colo. Host: *Pinus ponderosa*.

*Neodiprion ventralis* Ross, 1955. Forest Sci. 1: 201, 206. ♂ ♀.

\**werner* Ross. Ariz.

*Neodiprion werner* Ross, 1955. Forest Sci. 1: 200, 205. ♀.

#### DIPRION subgenus DIPRION Schrank, p. 21

*Pteron* Jurine, 1801. Suppressed by Internatl. Comn. Zool. Nomencl., 1936, not 1945.

*similis* (Hartig). Wis.

### Family TENTHREDINIDAE

#### Genus HEMITAXONUS Ashmead, p. 22

*dubitatus* (Norton). Host: *Onoclea*.

#### Genus STRONGYLOGASTER Dahlbom, pp. 22-23

*distans* Norton.

Biology: Beer, 1955. Kans. Univ. Sci. Bul. 37: 238-246.

*impressatus* Provancher. Hosts: Ferns.

*multicinctus* Norton, Host: Bracken fern, *Pteris aquilina*.

*politus* Cresson. Host: Bracken fern, *Pteris aquilina*.

*Strongylogaster politus* Provancher, 1882. Nat. Canad. 13: 294. ♀. Preocc.

*soriculatus* Cresson.

*Strongylogaster soriculatus* Provancher, change ref. to 1882, Nat. Canad. 13: 296. ♀.

*tibialis* Cresson.

Biology: Beer, 1955. Kans. Univ. Sci. Bul. 37: 227-238.

#### ANEUGMENUS subgenus ANEUGMENUS Hartig, p. 23

*flavipes* (Norton). Host: Bracken fern, *Pteris aquilina*.

#### DOLERUS subgenus DOLERUS Panzer, pp. 24-27

##### Unicolor Group, p. 25

\**nitens* Zaddach. Holarctic.

\**Dolerus coracinus* Stephens, 1835. Illus. Brit. Ent. Mand., v. 7, p. 87. Preocc.

*Dolerus nitens* Zaddach, 1859. Prog. Friedrichs Coll., Königsberg, p. 16. ♂ ♀.

*Dolerus wanda* Ross, 1935. N. syn. teste R. B. Benson in litt.

*wanda* Ross. Syn. of *nitens* Zaddach.



**Similis Group, pp. 26-27**

*elderi* Kincaid. Holarctic.

\**Dolerus pusillus* Jakovlev, 1891. Soc. Ent. Rossica Horae 26: 32.  
♀. Preocc.

\**Dolerus pullulus* Zhelochovtsev, 1928. Zool. Anz, 79(3-4): 107.  
♂ ♀.

Taxonomy: Benson, 1956. Roy. Ent. Soc. London Proc., ser. B, 25(3-4): 55.

*similis similis* (Norton). Host: *Equisetum*.

*yukonensis yukonensis* Norton, changed status. Northwest. North America; N. Eurasia. Host: *Equisetum*.

*Dolerus (Dolerus) yukonensis* Norton. Reduced to subsp. rank (*teste* Benson, 1956. Roy. Ent. Soc. London. Proc., ser. B, 25(3-4): 58 (lengthy European synonymy)).

**Gessneri Group, p. 27**

*frisoni* Ross. Syn of *pratensis* Linnaeus.

*gessneri* André. Reduced to subsp. rank. Delete *Dolerus neoaprilis* MacGillivray and *konowi* MacGillivray from syn.

*gessneri konowi* MacGillivray, changed status. Holarctic. *D. gessneri gessneri* André occurs in North England and Central Europe.

*Dolerus konowi* MacGillivray, 1914.

\**Dolerus kamtchaticus* Malaise, 1932. Arkiv för Zool. 23(A): 18.  
♂ ♀.

Taxonomy: Benson, 1956. Roy. Ent. Soc. London Proc., ser. B, 25(3-4): 59.

\**pratensis* Linnaeus. Holarctic.

*Tenthredo pratensis* Linnaeus, 1758. Syst. Nat. Ed. 10, p. 556. ♀.

*Dolerus frisoni* Ross, 1929. N. syn. *teste* R. B. Benson in litt.

\**subfasciatus neoaprilis* MacGillivray, changed status. Transcont., north. U.S. and Canada. *D. subfasciatus subfasciatus* Smith occurs in Japan.

*Dolerus neoaprilis* MacGillivray, 1908.

Taxonomy: Benson, 1956. Roy. Ent. Soc. London Proc., ser. B, 25: 59.

**DOLERUS subgenus LODERUS Konow, pp. 27-28**

Taxonomy: Benson, 1956. Roy. Ent. Soc. London Proc., ser. B, 25 (3-4): 62.

*acidus* (MacGillivray). Reduced to subsp. rank.

*albifrons* (Norton). Reduced to subsp. rank.

*apricus* (Norton). Reduced to subsp. rank.

*eversmanni acidus* (MacGillivray), changed status. North. U.S. and Canada; East Asia. *D. (L.) eversmanni eversmanni* Kirby occurs in Europe.

*genucinctus napaesus* MacGillivray, changed status. *D. (L.) genucinctus genucinctus* Zaddach is Eurasian.

*napaesus* MacGillivray. Reduced to subsp. rank.

*pratorum albifrons* (Norton), changed status. Transcont.; E. Asia. *D. (L.) pratorum pratorum* (Fallén) occurs in Europe.

*vestigialis apricus* (Norton), changed status. *D. (L.) vestigialis vestigialis* (Klug) occurs in Europe.

**Genus CALIROA O. Costa, pp. 28-29**

*lineata* MacGillivray. N. J. Host: *Quercus palustris*.

**Genus MESSA Leach, p. 30**

*populi* (Marlatt). Syn. of *populifoliella* (Townsend).

**\*populifoliella** (Townsend). Northeast., west to S. Dak., Ariz., and N. Mex.

Host: *Populus*.

Cottonwood leafminer, Townsend, 1892. Ins. Life 4: 26-27.

Tineidae ? larva, Townsend, 1892. Zoe 3: 234-236.

**Blennocampa populifoliella** Townsend, 1893. Canad. Ent. 25: 304.

**Scolioneura populi** Marlatt, 1895. Ent. Soc. Wash. Proc. 3: 235.

♂ ♀. N. syn.

**Scolioneura luteopicta** Rohwer, 1911. U.S. Natl. Mus. Proc. 41: 398.

♂ ♀. N. syn.

**Genus PROFENUSA MacGillivray, p. 30**

**alumna** (MacGillivray). Ont. Host: *Betula*.

Biology and Taxonomy: Anonymous, 1955. Canada Dept. Agr., Forest

Biol. Div., Bi-Monthly Prog. Rpt. 11 (5): 1-2.

**Genus HOPLOCAMPA Hartig, p. 33**

**testudinea** (Klug). Conn.

**Genus CRATEROCERCUS Rohwer, p. 33**

**albidovariata** (Norton). Host: *Quercus coccinea*.

**phytophagica** (Dyar). Host: *Quercus alba*.

**quercivorus** Rohwer. Wis.

**Genus ANOPLONYX Marlatt, p. 36**

**luteipes** (Cresson). Minn.

**Genus NEMATINUS Rohwer, pp. 36-37**

**pontanioides** (Marlatt). Oreg., not eastern.

**unicolor** (Marlatt). Host: *Betula alba*.

**Genus PRISTIPHORA Latreille, pp. 37-39**

Revision: Marlatt, 1896. U.S. Dept. Agr., Div. Ent. Tech. Ser. 3: 113-122.

**Genus PACHYNEMATUS Konow, pp. 39-41**

**Extensicornis Group, pp. 39-40**

**clibrichellus** (Cameron). Alaska. Host: *Carex*.

**sporax** Ross. Calif. Host: Wheat.

**Corniger Group, p. 41**

**corniger** Norton. Host: *Carex*.

**Unplaced Names, p. 41**

This section should follow the Corniger Group, p. 41.

**NEMATUS subgenus PTERONIDEA Rohwer, pp. 42-46**

**Ventralis Group, pp. 42-43**

**populi** (Marlatt).

*Nematus hudsonii magnus* Dyar, change 1894 to 1895.

**Erythrogaster Group, pp. 43-44**

**erythrogaster** Norton. Host: *Carpinus*.

**latifasciatus** Cresson. Host: *Betula*.

**Mendicus Group, p. 44**

**tibialis** Newman. Eastern, west to Wis.

**Ribesii Group, pp. 44-45**

*odoratus* (Marlatt). Delete; replaced by *salicis-odoratus* Dyar.

*salicis-odoratus* Dyar. Eastern, west to Ill. Hosts: *Salix*, *Populus*. Replaces *odoratus* (Marlatt); *salicis-odoratus* Dyar is valid and has priority.

**Ungrouped Species, pp. 45-46**

\**reticulatus* Holmgren. Alaska; Siberia.

*Nematus reticulatus* Holmgren, 1883. Ent. Tidskr. 4: 143. ♀

**NEMATUS subgenus PONTANIA O. Costa, pp. 46-48**

The species of this subgenus produce galls or leaf-folds on *Salix* or *Populus*.

*maurus* (Rohwer). Delete; placed in syn. of *Amauronematus suavis* (Ruthe), p. 53, in Catalog.

\**petiolaridis* (Rohwer), n. comb. Ont. Host: Leaf gall on *Salix petiolaris*.

*Pontania petiolaridis* Rohwer, 1917. In Cosens, Ent. Soc. Ontario Ann. Rpt. 47: 18-19. ♂ ♀.

\**Pontania petiolaris* Felt, 1917. N. Y. State Mus. Bul. 200: 34. N. syn.

**Genus EUURA Newman, pp. 48-51**

Species of this genus produce galls on willow.

**Genus AMAURONEMATUS Konow, pp. 51-53**

*xanthus* Rohwer. Wis.

**Unplaced Nematinae, pp. 54-55**

\**Nematus tetraopsis* Provancher, 1895. Nat. Canad. 22: 79. ♀.

**Genus EMPRIA Lepeletier, pp. 55-56**

*coryli* (Dyar). Wis.

*multicolor* (Norton).

*Emphytus hullensis* Provancher, change 1885 to 1886.

**Genus AMETASTEGIA A. Costa, pp. 57-58**

*glabrata* (Fallén).

*Taxonus nigrisoma* Norton, change 1892 to 1862.

*Strongylogaster abnormis* Provancher, change 1889 to 1885.

*inornata* (Say). Fla.

*pallipes* (Spinola).

*Tenthredo pallipes* Provancher, change to *Emphytus p.*; delete "♂".

**Genus APHILODYCTIUM Ashmead, p. 58**

*fidum* (Cresson).

*Taxonus robustus* Provancher, change ref. to 1882. Nat. Canad. 13: 294. ♀.

**Genus MACREMPHYTUS MacGillivray, p. 59**

*semicornis* (Say). Wis.

*tarsatus* (Say). Wis.

**Genus TAXONUS Hartig, pp. 59-60**

*pallicoxus* (Provancher).

*Strongylogaster pallicoxus* Provancher, change 1889 to 1885.

*proximus* (Provancher).

*Strongylogaster proximus* Provancher, change 1889 to 1885.



**Genus DIMORPHOPTERYX Ashmead, p. 61**

*pinguis* (Norton). Add "1923. Ill." after MacGillivray in orig. cit. of *scopulosus*.

**Genus PSEUDOSIOBLA Ashmead, p. 62**

Revision: Rohwer, 1911. U. S. Natl. Mus. Proc. 41: 403-404.

*floridana* (Provancher).

*Taxonus floridanus* Provancher, change 1889 to 1888.

**Genus TOMOSTETHUS Konow, p. 62**

*multicinctus* (Rohwer). Ont., Calif.

**Genus PAREOPHORA Konow, pp. 63-64**

*minuta* (MacGillivray). Md., Ont. Host: *Fraxinus*.

**Genus RHADINOCERAEA Konow, p. 64**

*nubilipennis* (Norton). Host: *Veratrum viride*.

**Genus PHYMATOCERA Dahlbom, p. 64**

*Melanoselandria* Ashmead, 1900. Delete; manuscript name.

\**Melanoselandria* MacGillivray, 1909. Canad. Ent. 41: 404.

Type: *Melanoselandria zabriskiei* MacGillivray. By monotypy.

*fumipennis* (Norton).

\**Melanoselandria zabriskiei* MacGillivray, 1909. Canad. Ent. 41: 404.

*zabriskiei* (MacGillivray). Syn. of *fumipennis* (Norton).

**PERICLISTA subgenus PERICLISTA Konow, pp. 65-66**

*linea* Stannard.

Biology: Beer, 1955. Kans. Ent. Soc. Jour. 28: 19-26.

**PERICLISTA subgenus NEOCHARACTUS MacGillivray, p. 66**

*Alphanisus* MacGillivray, change to *Aphanisus* MacG.

**Genus HALIDAMIA Benson, p. 69**

*affinis* (Fallén). N. J. Host: *Galium aparine*.

Unplaced Species of Blennocampinae, p. 69

\**Monophadnus pallipes* Provancher, 1895. Nat. Canad. 22: 80. ♂ ♀.

**Genus TENTHREDO Linnaeus, pp. 71-78****Piceocincta Group, p. 72**

*piceocincta* (Norton).

*Tenthredo ruficoxa* Provancher, change 1886 to 1885.

**Angulifera Group, p. 73**

*angulifera* (Norton). Wis.

*mantha* Ross. Wis.

**Leucostoma Group, pp. 73-74**

*leucostoma* Kirby. Wis.

**Genus MACROPHYA Dahlbom, pp. 79-82**

*bifasciatus* (Say), change to *bifasciata* (Say).

*fumator* Norton.

*Synairema pacifica* Provancher, change 1889 to 1885.

*pulchella* (Klug). Hosts: *Aster*, *Solidago*, *Rudbeckia*.

*trisyllaba* (Norton). Host: *Sambucus*.

**Epinota Complex, pp. 81-82**

**albo maculata** (Norton). Wis.

**epinota** (Say). Host: *Sambucus*.

**externa** (Say). Host: *Carya*.

**tibiator** Norton. Host: *Sambucus*.

**Unplaced Species of Tenthredinidae, p. 82**

\**Emphytus nigristigma* Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 348. ♀.

\**Nematus decoratus* Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 149. ♂.

\**Selandria canadensis* Provancher, 1885. Addit. Corr. Faune Ent. Canada Hym., p. 7. ♀.

\**Selandria paupera* Provancher, 1883. Faune Ent. Canada Hym., p. 742.

\**Strongylogaster albosectus* Provancher, 1878. Nat. Canad. 10: 168. ♀.

**Superfamily SIRICOIDEA****Family SIRICIDAE****Genus SIREX Linnaeus, p. 83**

**cyaneus** Fabricius. Delete **varipes** Walker from syn.

**edwardsii** Brullé. Wis.

\***juvencus** (Linnaeus). Labrador, Newfoundland; Europe.

*Ichneumon juvencus* Linnaeus, 1758. Syst. Nat., ed. 10, v. 1, p. 560.

\***longicauda** Middlekauff. Calif. Host: *Abies concolor*.

*Sirex longicauda* Middlekauff, 1948. Pan-Pacific Ent. 24: 189. ♀.

**nigricornis** Fabricius. Wis.

\***noctilio** Fabricius. Ont.; Europe.

*Sirex noctilio* Fabricius, 1793. Ent. Syst., v. 2, p. 130.

**varipes** Walker. Mont. and Wyo. west to B. C., Wash., Oreg., and Calif. Hosts: *Picea sitchensis*, *Pinus contorta*, *P. ponderosa*, *Abies lasiocarpa*.

*Sirex varipes* Walker, 1866. In Lord, Naturalist in Vancouver Is. and B. C., v. 2, p. 342. ♀.

**Genus UROCERUS Geoffroy, p. 84**

Delete *Urocerus* Geoffroy, 1762. Hist. Ins. Paris, v. 2, p. 264.

This publication not available for nomenclatorial purposes, *teste* Opinion 228, Internatl. Comm. Zool. Nomencl., April 1954.

**\*Genus UROCERUS Fourcroy**

*Urocerus* Fourcroy, 1785. Ent. Parisiensis, pt. 2, p. 363.

Type: *Ichneumon gigas* Linnaeus. By monotypy. Replaces *Urocerus* Geoffroy, p. 84.

**cressoni** Norton. Fla., Wis.

\***flavicornis** (Fabricius). Labrador and N. Que. west to Alta., Mont., Wyo., Colo., N. Mex., Utah, Idaho, and Oreg., north to Alaska. Hosts: *Abies lasiocarpa*, *Picea sitchensis*, *Pinus murrayana*, *Pseudotsuga taxifolia*.

*Sirex flavicornis* Fabricius, 1781. Spec. Ins., v. 1, p. 418.

\**taxodii* (Ashmead). D. C. south to Fla., west to Mo. Host: *Taxodium distichum*.

*Sirex taxodii* Ashmead, 1904. Canad. Ent. 36: 63. ♂ ♀.

### Genus XERIS A. Costa, p. 84

Revision: Maa, 1949. Notes d'Ent. Chinoise (Mus. Heude) 13: 79-89.

*macgillivrayi* Bradley. Syn. of *tarsalis* Cresson.

*morrisoni* (Cresson). Reduced to subsp. by Maa, 1949. Delete *tarsalis*, (Cresson) and *indecisus* (MacGillivray) from syn.

*morrisoni indecisus* (MacGillivray), changed status. Utah, Wash., Oreg., Calif. Hosts: *Abies concolor*, *A. grandis*, *A. lasiocarpa*, *Libocedrus decurrens*, *Picea sitchensis*, *Tsuga heterophylla*.

*Urocerus indecisus* MacGillivray. Not a syn. of *morrisoni*, but a subsp. (teste Maa 1949. Notes d'Ent. Chinoise (Mus. Heude) 13: 85).

*morrisoni morrisoni* (Cresson), changed status. Colo. Hosts: *Picea pungens*, *Pseudotsuga taxifolia*, *Abies concolor*.

*Xeris morrisoni* (Cresson), of Catalog, in part. Reduced to subsp. rank (teste Maa 1949. Notes d'Ent. Chinoise (Mus. Heude) 13: 85).

*spectrum* (Linnaeus). Reduced to subsp. by Maa, 1949. References and syn. in catalog under *spectrum* apply to *spectrum spectrum*.

*spectrum spectrum* (Linnaeus), changed status. Holarctic; N. B., Maine, and Conn. west to Rocky Mountain States. Hosts: *Abies lasiocarpa*, *Picea pungens*, *Pinus contorta*, *P. murryana*, *Pseudotsuga taxifolia*.

\**spectrum townesi* Maa. Mont., B. C., Wash., Oreg. Hosts: *Abies grandis*, *A. lasiocarpa*, *Picea sitchensis*, *Pseudotsuga taxifolia*, *Tsuga heterophylla*.

*Xeris spectrum townesi* Maa, 1949. Notes d'Ent. Chinoise (Mus. Heude) 13: 88.

*tarsalis* (Cresson). Wash., Oreg., Calif. Host: *Cupressus macrocarpa*, ? *Thuja plicata*.

*Urocerus tarsalis* Cresson. A valid sp., not a syn. of *morrisoni* (Cresson) (teste Maa, 1949. Notes d'Ent. Chinoise (Mus. Heude) 13: 82).

*Xeris macgillivrayi* Bradley (teste Maa, loc. cit. supra).

## Family XIPHYDRIIDAE

Classification: Maa, 1949. Notes d'Ent. Chinoise (Mus. Heude) 13: 20-76.

Maa indicates that probably 5 Nearctic species belong in *Xiphydria* Latreille, and 4 Nearctic species belong in *Xiphydriola* Semenov-Tian-Shanskii. A revision of the Nearctic species will be required to determine the correctness of these generic segregations.

## Family ORUSSIDAE

### Genus ORUSSUS Latreille, p. 86

*occidentalis* Cresson. References in syn. to *modestus*, *abietes*, *pini*, *relativus*, *hopkinsi* should be Rohwer, 1912, not 1925.

*sayii* Westwood. In orig. cit. of *Sayii* delete "(1832-1834)" and change "♀" to "♂ = ♀."

*Orussus terminalis* Newman (syn. by Pratt, 1938. Psyche 45: 95 and Guiglia, 1943. (Genoa) Mus. Civ. Stor. Nat. Ann. 62: 105).

Biology: Cooper, 1953. Rochester Acad. Sci. Proc. 10: 38-68, 2 pls.

*terminalis* Newman. Syn. of *sayii* Westwood.



## Superfamily CEPHOIDEA

## Family CEPHIDAE

Genus CAENOCEPHUS Konow, p. 87

*aldrichi* Bradley. Calif. Host: *Conium maculatum*.

CEPHUS subgenus CEPHUS Latreille, pp. 88-89

*Astatus* Jurine, 1801. Suppressed by Internatl. Comn. Zool. Nomencl., 1936, not 1939.

## Suborder APOCRITA

## Superfamily ICHNEUMONOIDEA

## Family STEPHANIDAE

Biology: Rodd, 1951. Austral. Zool. 11 (pt. 4): 341-343.

## Family BRACONIDAE

Genus EPHEDRUS Haliday, p. 91

*incompletus* (Provancher).

Biology: Wheeler, 1923. Ent. Soc. Amer. Ann. 16: 14-21.

*nitidus* Gahan. B. C. Host: *Myzus cerasi* (F.)

Genus PRAON Haliday, pp. 91-92

*artemisaphis* C. F. Smith. Wash.*coloradensis* Ashmead. Wash.*occidentalis* Baker. Wis.\**palitans* Muesebeck. Ky.; Italy, Israel, France, Yugoslavia. Hosts: *Pterocallidium trifolii* (Mon.) and *P. sp.* on alfalfa.*Praon palitans* Muesebeck, 1956. Brooklyn Ent. Soc. Bul. 51: 27. ♀ ♂.*unicus* C. F. Smith. Wash.*virginiensis* Ashmead. Mich.

APHIDIUS subgenus XENOSTIGMUS C. F. Smith, p. 92

*bifasciatus* Ashmead. Wash.

APHIDIUS subgenus PROTAPHIDIUS Ashmead, pp. 92-93

*bicolor* Ashmead. Wis.*californicus* Ashmead. B. C., Alta.*juniperaphidis* Gahan. B. C.*takomaensis* C. F. Smith. Sask. Host: *Cinara hottesi* (G. and P.).

APHIDIUS subgenus APHIDIUS Nees, pp. 93-95

*berberidis* C. F. Smith. Wash.\**cingulatus* Ruthe. Iceland, Greenland.*Aphidius cingulatus* Ruthe, 1859. Stettin. Ent. Zeit. 20: 315. ♀ ♂.*floridaensis* C. F. Smith. Tex. Host: *Aphis gossypii* Glov.*nigripes* Ashmead. Maine, N. C., Mich., Kans., Minn.*nigriteleus* C. F. Smith. Maine, Md., D. C., Calif., Wash. Host: *Macrosiphum solanifolii* (Ashm.)

**ohioensis** C. F. Smith. Calif., Kans. Host: *Macrosiphum erigeronensis* (Thos.).

**phorodontis** Ashmead. Maine, Idaho. Host: *Capitophorus* sp.  
Biology: Wheeler, 1923. Ent. Soc. Amer. Ann. 16: 14-29.

**polygonaphis** (Fitch). After *Lysiphlebus succineus* Viereck change "♂" to "♀, not ♂."

**ribis** Haliday. Man.

Biology: Wheeler, 1923. Ent. Soc. Amer. Ann. 16: 16-23.

#### **APHIDIUS subgenus LYSIPHLEBUS Foerster, pp. 95-96**

**testaceipes** (Cresson). South. Canada.

#### **TRIOXYS subgenus TRIOXYS Haliday, pp. 96-97**

\***utilis** Muesebeck. Ky., Nebr.; Italy, France. Hosts: *Pterocallidium trifolii* (Mon.) and *P.* sp. on alfalfa.

*Trioxys utilis* Muesebeck, 1956. Brooklyn Ent. Soc. Bul. 51: 26. ♀ ♂.

#### **Genus DIAERETUS Foerster, p. 97**

**rapae** (M'Intosh). Kans., Ariz., Wash., South. Canada.

Biology: Wheeler, 1923. Ent. Soc. Amer. Ann. 16: 17-19.

**salicaphis** (Fitch). Wash., Sask. Host: *Neothomasia populicola* (Thos.)

#### **Genus ARIDELUS Marshall, p. 98**

**fisheri** Viereck. Host: *Euschistus servus euschistoides* (Voll.)

#### **Genus METEORUS Haliday, pp. 98-101**

**angustipennis** Muesebeck. Tenn.

**argyrotaeniae** Johansen. Oreg., Calif. Hosts: *Spilonota ocellana* (D. and S.), *Archips argyrospila* (Wlkr.).

**autographae** Muesebeck. Newfoundland, N. S. Host: *Hemerocampa leucostigma* (J. E. Smith).

**bakeri** Cook and Davis. Utah, Mont., Wash., N. B. to Sask. Host: *Hyphantria textor* (Harr.).

**campestris** Viereck. Remove from synonymy under **indagator** (Riley). Que., Ont. Host: *Dioryctria reniculella* (Grote).

*Meteorus loxostegei* Viereck. N. syn. (based on exam. of type of *campestris* by C. F. W. Muesebeck).

**cingiliae** Muesebeck. Ont., N. B.

**communis** (Cresson). Hosts: *Amphipyra pyramidoides* Gn., *Orthosia hibisci* (Gn.), *O. revicta* (Morr.), *Lithophane bethunei* (Grote and Rob.), *Eupsilia sidus* (Gn.).

**dimidiatus** (Cresson). B. C. Host: *Tortrix pallorana* (Rob.)

**fumipennis** Muesebeck. B. C.

**hyphantriae** Riley. Hosts: *Nepytia canosaria* (Wlkr.), *Acrionicta* sp., *Olene plagiata* (Wlkr.).

**hypophlaei** Cushman. Calif. Host: *Dendroctonus monticolae* Hopk.

**indagator** (Riley). N. B., Ont. Host: *Acrobasis rubrifasciella* Pack. Remove **campestris** Viereck from synonymy.

**islandicus** (Ruthe). N. W. T. (Arctic Region).

\***leviventris** (Wesmael). Europe, Iceland, Greenland, all of U. S., south. Canada.

*Perilitus leviventris* Wesmael, 1835. Nouv. Mem. Acad. Sci. Bruxelles 9: 46. ♀.

*Perilitus vulgaris* Cresson (Syn. by Petersen, 1956. The Zoology of Iceland 3 (49-50): 24).

*loxostegei* Viereck. Syn. of *campestris* Viereck.

*niveitarsis* (Cresson). N. S., N. Y., Va., Ga. Hosts: *Salebria virgatella* (Clem.), *Acrobasis betulella* Hulst, *A. rubrifasciella* Pack.

*politus* (Provancher). Que., Sask., B. C.

*reticulatus* Muesebeck. Idaho, Newfoundland to B. C. Hosts: *Semiothisa granitata*, *S. sexmaculata* (Pack.).

*tauricornis* (Provancher). Labrador to Alaska.

\**tersus* Muesebeck. Calif. (Carlsbad). Host: *Sabulodes caberata* (Gn.).

*Meteorus tersus* Muesebeck, 1956. Pan-Pac. Ent. 32: 25. ♀ ♂.

*tetralophae* Muesebeck. Ont., Iowa. Hosts: *Dioryctria disclusa* Heinr., *Tetralopha asperatella* (Clem.).

*trachynotus* Viereck. Hosts: *Sparganothis pettitana* (Rob.), *Acleris variana* (Fern.).

Biology: McGugan, 1955. Canad. Ent. 87: 179-187.

*versicolor* (Wesmael). Que., B. C. Host: *Protoboarmia porcelaria* (Gn.).

*vulgaris* (Cresson). Syn. of *leviventris* (Wesmael).

#### Genus MICROCTONUS Wesmael, p. 102.

\**aethiops* (Nees). N. D.; Europe. Host: *Sitona cylindricollis* Fahr.

*Perilitus aethiops* Nees, 1834. Hym. Ich. Aff. Monog., v. 1, p. 32. ♂.

*eleodis* (Viereck). Alta., Sask.

*mellinus* (Provancher). Canada, Mich., Tenn., Fla.

*nigritus* (Provancher). N. B., Man. Hosts: *Hypomolyx piceus* (DeG.) *Altica ambiens alni* (Harr.).

*vittatae* Muesebeck. Wash. Hosts: *Phyllotreta striolata* (F.), *P. bipustulata* (F.).

#### Genus WESMAELIA Foerster, p. 102

*pendula* Foerster. Ariz., Yukon.

#### Genus SYNTRETUS Foerster, pp. 102-103

*brevicornis* Muesebeck. Wis.

*vigilax* (Provancher). Que.

#### Genus EUPHORIAELLA Ashmead, p. 103

*incerta* (Ashmead). N. B.

\**sommermanae* Muesebeck. Conn. Host: *Anomopsocus amabilis* (Walsh).

*Euphoriella sommermanae* Muesebeck, 1956. Ent. Soc. Wash. Proc. 58: 148. ♀ ♂.

#### Genus EUPHORUS Nees, pp. 103-104

*maculipennis* (Ashmead). Ont. Delete Colo.

*pallipes* (Curtis). Wash., B. C.

#### Genus MACROCENTRUS Curtis, pp. 104-107

*aegeriae* Rohwer. N. S. to B. C. Host: *Zeiraphera ratzburgiana* Sax.

*affinis* Muesebeck. Mich.

*ancyliovorus* Rohwer. N. S. to Man. Hosts: *Acleris oxycoccana* (Pack.), *Epiblema strenuana* (Wlkr.), *Gnorimoschema operculella* (Zell.), *Melissopus latiferreanus* (Wlsm.), *Paralobesia viteana* (Clem.), *Phalonia hospes* (Wlsm.).

Biology: Fink, 1926. Jour. Agr. Res. 12: 1121-1134.—Finney, Flanders and Smith, 1947. Hilgardia 17: 437-483.



- atratus** Muesebeck. Wis., Ariz., Prince Edward Island, B. C.  
**clypeatus** Muesebeck. Mich.  
**crassipes** Muesebeck. Que., Ont., Sask.  
**cuniculus** Walley. Man., Sask.  
**delicatus** Cresson. Que. to Man. Host: *Grapholitha tristrigana* (Clem.)  
**exartemae** Walley. Que. Host: *Archips rosaceana* (Harr.).  
**gravitarsis** Muesebeck. Oreg.  
**impressus** Muesebeck. Wis., N. S. to Ont. Hosts: *Psilicorsis fletcherella* Gibs., *P. faginella* (Chamb.).  
**incompletus** Muesebeck. Alta., Sask.  
**innuitorum** Walley. Keewatin Dist.  
**instabilis** Muesebeck. Hosts: *Acrobasis rubrifasciella* Pack., *Homaledra sabalella* (Chamb.).  
 Biology: Nickels, Pierce, and Pinkney, 1950. U. S. Dept. Agr. Tech. Bul. 1011: 8-9.  
**iridescens** French. Sask. Hosts: *Archips fractivittana* (Clem.), *A. conflictana* (Wlkr.), *A. cerasivorana* (Fitch).  
**longicornis** Provancher. Que., Mich.  
**nigridorsis** Viereck. N. S., B. C. Host: *Archips persicana* (Fitch).  
**pallisteri** DeGant. Fla.  
**pectoralis** Provancher. Que.  
**peroneae** Muesebeck. Newfoundland, N. B., Minn. Hosts: *Argyretaenia occultana* Freem., *Choristoneura fumiferana* (Clem.).  
**reticulatus** Muesebeck. Md., Mich.  
**texanus** Muesebeck. Fla.  
**uniformis** Provancher. N. S. to Man., Fla. Hosts: *Semiothisa granitata* (Gn.), *Caripeta angustiorata* (Wlkr.), *Anavitrinella pampinaria* (Gn.), *Alypia langtoni* Coup.

#### Genus CENOCOELIUS Westwood, pp. 107-108

**ashmeadii** Dalla Torre.

*Capitonus rubriceps* Provancher, n. syn. Preocc. (Syn. based on examination of type by C. F. W. Muesebeck.)

*Capitonus provancheri* Rohwer, n. syn. (N. name for *rubriceps* Provancher).

**provancheri** (Rohwer). Syn. of *ashmeadii* Dalla Torre.

#### Genus HELCONIDEA Viereck, p. 108

**ferruginea** (Brues). Colo. Host: *Phymatodes varius* (F.).

**ligator** (Say). Que., Ont. Host: *Magdalis armicollis* (Say).

**occidentalis** (Cresson). N. B., Que., Ont., B. C.

#### Genus HELCON Nees, p. 108

\**Wroughtonia* Cameron, 1889. Manchester Lit. and Phil. Soc. Mem. 43: 56.

Type: *Wroughtonia cornuta* Cameron. By monotypy.

**pedalis** Cresson. Que. to Yukon. Host: *Xyltrechus annosus* Say.

#### Genus ZELE Curtis, p. 109

**crassicalcarata** Viereck. N. B., Que., Ont. Host: *Amathes smithi* (Snell.).

## Subfamily BLACINAE, p. 109

Taxonomy: Martin, 1956. Canada Dept. Agr. Pub. 965: 7-9.

## \*Tribe BLACINI

Place in Blacinae before *Neoblacus* Ashmead, p. 110.Genus *ORGILUS* Holiday, p. 111*maculiventris* (Cresson).

Biology: Nickels, Pierce, and Pinkney, 1950. U. S. Dept. Agr. Tech. Bul. 1011: 12.

Genus *EUBADIZON* Nees, pp. 111-112*crassigaster* (Provancher). Wis., Minn. Host: *Pissodes dubius* Rand.*gracile* Provancher. N. B. to B. C., Calif. Hosts: *Recurvaria milleri* Busck, *Dioryctria reniculella* (Grote), *Choristoneura fumiferanae* (Clem.), *Archips* sp.*major* (Cresson). Host: *Magdalis barbata* (Say).*orchesia* (Ashmead). Ill., Iowa. Host: *Bolitotherus cornutus* (Panz.)*pleurale* Cresson. Que., Ont., Fla., Idaho. Host: *Epinotia lindana* (Fern.)*strigitergum* Cushman. Host: *Pseudohylesinus* sp. in Douglas fir. Change 1929 to 1930.

## \*Tribe TRIASPIDINI

Place in Blacinae after *Microtypus* Ratzeburg, p. 113.

Revision: Martin, 1956. Canada Dept. Agr. Pub. 956: 10-157.

Genus *UROSIGALPHUS* Ashmead, pp. 113-114

Revision: Martin, 1956. Canada Dept. Agr. Pub. 965: 102-137.

*arizonensis* Crawford. Host: *Bruchus desertorum* Lec.*armatus* Ashmead. Md., W. Va.*barberi* Crawford. Que., Ont. Hosts: *Curculio pardalis* (Chitt.), *Curculio* spp.*bruchii* Crawford. Ariz. Hosts: *Bruchus prosopis* Lec., *B. sallei* Sharp, *Merobruchus havardiae* Bridw.*crassisculptus* Cushman. Pa., Ill.*femoratus* Crawford. N. Y., Utah, Ariz.\**forbesi* Martin. Ala. (Birmingham). Host: ? *Curculio* sp.*Urosigalphus forbesi* Martin, 1956. Canada Dept. Agr. Pub. 965: 104, 118. ♀.*neomexicanus* Crawford. Colo.\**nigrescens* Martin. Ariz. (Santa Rita Mts.).*Urosigalphus nigrescens* Martin, 1956. Canada Dept. Agr. Pub. 965: 104, 115. ♂.*pini* Cushman. Host: *Cylindrocopturus longulus* (Lec.).*punctifrons* Crawford. Ariz.*robustus* Ashmead. Mich., Iowa.\**truncatus* Martin. Calif. (Needles).*Urosigalphus truncatus* Martin, 1956. Canada Dept. Agr. Pub. 965: 104, 122. ♀.Genus *ALIOLUS* SayRemove from synonymy under *Triaspis* Haliday, p. 114, and place before *Triaspis*.

Revision: Martin, 1956. Canada Dept. Agr. Pub. 965: 14-60.

- \**acutulus* Martin. N. Y. (Ithaca).  
*Aliolus acutulus* Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 19. ♀.
- \**auriculatus* Martin. Colo. (Larkspur).  
*Aliolus auriculatus* Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 21.  
 ♀ ♂.
- \**bicornis* Martin. U. S. (State not known).  
*Aliolus bicornis* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 39. ♀.
- \**bucculentus* Martin. B. C. (Hope).  
*Aliolus bucculentus* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 41.  
 ♀.
- \**calyptoides* Martin. Wis. (Boulder Junction).  
*Aliolus calyptoides* Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 31.  
 ♀.
- canadensis* (Provancher). N. Y., Mass. Trans. from *Triaspis* (teste Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 44).
- collaris* (Brues). N. Mex., Kans., Fla. Transf. from *Triaspis* (teste Martin 1956. Canada Dept. Agr. Pub. 965: 16, 22).
- \**crabilli* Martin. N. Y., south to Ga., and west to Wis.  
*Aliolus crabilli* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 60. ♀ ♂.
- \**crassipes* Martin. Md., Pa., S. C.  
*Aliolus crassipes* Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 35.  
 ♀ ♂.
- curculionis* (Fitch). All U. S. except northwestern States, Que. Hosts: *Magdalis armicollis* (Say), *Grapholitha molesta* (Busck), *Craponus inaequalis* (Say). Transf. from *Triaspis* (teste Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 27).
- \**denticulatus* Martin. Md., D. C., N. J., Pa., N. Y., Iowa.  
*Aliolus denticulatus* Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 33.  
 ♀ ♂.
- \**evanidus* Martin. Tex. (Robstown).  
*Aliolus evanidus* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 37. ♂.
- fiskei* (Rohwer). Delete Que. from range; N. J., Md., Va. Hosts: *Cossonus* sp. in *Hicoria*, *Mordella octopunctata* F. Transf. from *Triaspis* (teste Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 47).
- \**inartus* Martin. Ont. (St. Davids).  
*Aliolus inartus* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 38. ♂.
- \**indeprehensus* Martin. Miss. (Lincoln Co.).  
*Aliolus indeprehensus* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 46. ♀.
- \**marginatus* Martin. Md., Va., W. Va., N. Y., Ohio.  
*Aliolus marginatus* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 57.  
 ♀ ♂.
- \**mexicanus* (Cresson). N. Mex.; Mexico.  
*Calyptus mexicanus* Cresson, 1872. Canad. Ent. 4: 229. ♂.
- \**patei* Martin. N. S., Ont., N. Y., R. I., N. J., Pa., W. Va., Va., N. C., S. C., S. Dak.  
*Aliolus patei* Martin 1956. Canada Dept. Agr. Pub. 965: 17, 55. ♀ ♂.
- rufus* (Riley), changed status. Raised to sp. rank and transf. from *Triaspis* (teste Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 24).
- \**stanleyi* Martin. Tex. (Fresno).  
*Aliolus stanleyi* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 53. ♀ ♂.
- \**stictopleurus* Martin. Pa., N. C., Miss., Mich. Host: *Obrium rufulum* Gahan.  
*Aliolus stictopleurus* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 52.  
 ♀ ♂.



*tomoxiae* (Rohwer). Pa., Md., Kans. Transf. from *Triaspis* (*teste* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 49).

\**tridentatus* Martin. Ariz. (Sta. Catalina Mts.)

*Aliolus tridentatus* Martin, 1956. Canada Dept. Agr. Pub. 965: 16, 30. ♀.

*trilobatus* (Say). Transf. from *Triaspis* (*teste* Martin, 1956. Canada Dept. Agr. Pub. 965: 17, 42).

### Genus *TRIASPIS* Haliday, pp. 114-115

*Aliolus* Say. Delete from synonymy. Treat as distinct genus in *Triaspini* before *Triaspis*.

Revision: Martin, 1956. Canada Dept. Agr. Pub. 965: 61-101.

### *TRIASPIS* subgenus *TRIASPIS* Haliday, p. 114

Revision: Martin, 1956. Canada Dept. Agr. Pub. 965: 64-97.

\**abditiva* Martin. N. Y. (Syracuse).

*Triaspis (Triaspis) abditiva* Martin, 1956. Canada Dept. Agr. Pub. 965: 65, 76. ♀ ♂.

\**aequoris* Martin. Kans. (Riley Co.).

*Triaspis (Triaspis) aequoris* Martin, 1956. Canada Dept. Agr. Pub. 965: 66, 92. ♀.

\**aquila* Martin. Que. (Laniel).

*Triaspis (Triaspis) aquila* Martin, 1956. Canada Dept. Agr. Pub. 965: 65, 85. ♂.

*canadensis* (Provancher). Trans. to *Aliolus*.

*collaris* (Brues). Trans. to *Aliolus*.

*curculionis* (Fitch). Transf. to *Aliolus*.

*curculionis* var. *rufus* (Riley). Raised to sp. rank and transf. to *Aliolus*.

*fiskei* Rohwer. Transf. to *Aliolus*.

\**halidayi* Martin. S. Dak. (Brookings).

*Triaspis (Triaspis) halidayi* Martin, 1956. Canada Dept. Agr. Pub. 965: 66, 89. ♂.

\**kurtogaster* Martin. Ont. south to Ga. and west to Tenn. and La. Hosts: *Conotrachelus nenuphar* (Hbst.), *Brachyrhinus ovatus* (L.), *Chalcodermus aeneus* Boh., *C. collaris* Horn, *Anthonomus grandis* Boh., *Curculio* sp.

*Triaspis (Triaspis) kurtogaster* Martin, 1956. Canada Dept. Agr. Pub. 965: 66, 90. ♀.

\**laticarinata* Martin. B. C.

*Triaspis (Triaspis) laticarinata* Martin, 1956. Canada Dept. Agr. Pub. 965: 66, 94. ♂ ♀.

\**magnafoveae* Martin. N. S., Ont., Alta., Mich., Ill.

*Triaspis (Triaspis) magnafoveae* Martin, 1956. Canada Dept. Agr. Pub. 965: 65, 70. ♀ ♂.

\**matercula* Martin. S. Dak. (Brookings).

*Triaspis (Triaspis) matercula* Martin, 1956. Canada Dept. Agr. Pub. 965: 65, 68. ♀.

\**ocellulata* Martin. N. Y., Ont.

*Triaspis (Triaspis) ocellulata* Martin, 1956. Canada Dept. Agr. Pub. 965: 66, 87. ♂ ♀.

\**odontochila* Martin. La., Va. Host: *Podapion* sp.

*Triaspis (Triaspis) odontochila* Martin, 1956. Canada Dept. Agr. Pub. 965: 65, 83. ♀ ♂.

- \**rectangulata* Martin. Colo., S. Dak., Utah, Idaho.  
*Triaspis (Triaspis) rectangulata* Martin, 1956. Canada Dept. Agr. Pub.  
 965: 65, 74. ♀ ♂.
- \**stenochila* Martin. Kans. (Kiowa Co.).  
*Triaspis (Triaspis) stenochila* Martin, 1956. Canada Dept. Agr. Pub.  
 965: 65, 78. ♀.
- \**stenogaster* Martin. Colo. (Fort Collins).  
*Triaspis (Triaspis) stenogaster* Martin, 1956. Canada Dept. Agr. Pub.  
 965: 65, 72. ♀ ♂.
- \**stictostiba* Martin. "Canada." Host: *Bruchus rufimanus* Boh.  
*Triaspis (Triaspis) stictostiba* Martin, 1956. Canada Dept. Agr. Pub.  
 965: 65, 82. ♀.
- \**stilpnogaster* Martin. Idaho, Calif., Wis.  
*Triaspis (Triaspis) stilpnogaster* Martin, 1956. Canada Dept. Agr. Pub.  
 965: 65, 66. ♀.
- tomoxiae* (Rohwer). Transf. to *Aliolus*.
- trilobatus* (Say). Transf. to *Aliolus*.
- virginiensis* (Ashmead). Md., Pa.

#### Genus SCHIZOPRYMNUS Foerster, p. 113

Treat as subgenus of *Triaspis*, p. 114.

#### TRIASPIS Subgenus SCHIZOPRYMNUS Foerster

Changed status. Reduce to subg. rank under *Triaspis*, p. 114 (*teste* Martin, 1956. Canada Dept. Agr. Pub. 965: 61, 98).

#### Genus CREMNOPS Foerster, pp. 115-116

- aionos* Shenefelt. Correct spelling for *ainos*. Ariz.
- comstocki* (Morrison). Fla., Ont., Alta., Sask.
- kelloggii* (Morrison). Calif.
- montrealensis* (Morrison). N. S., Ont., Minn.
- nigrosternum* (Morrison). Mass., Sask.
- szepligetii* (Morrison). Mass.
- virginiensis* (Morrison). Que., Ont., Fla.
- vulgaris* (Cresson). Ariz., Ont. to B. C.
- washingtonensis* Shenefelt. Colo., B. C.

#### Genus EARINUS Wesmael, p. 116

- limitaris* (Say). Wash., N. S. to B. C. Hosts: *Xylomyges dolosa* Grote, *Graptolitha* sp.
- zeirapherae* Walley. N. S. to B. C. and Alaska. Hosts: *Acleris hudsoniana* (Wlkr.), *Archips rosaceana* (Harr.).

#### Genus AENIGMOSTOMUS Ashmead, p. 116

- longipalpus* (Cresson). Wash.

#### Genus AGATHIRIA Westwood, p. 116

- nigricauda* (Viereck). Ariz.

#### Genus CRASSOMICRODUS Ashmead, p. 117

- nigrithorax* Muesebeck. Alta.
- divisus* (Cresson). Ont.

Genus **AGATHIS** Lotreille, pp. 117-121

**abdominalis** (Muesebeck). Tex.

**aciculata** (Ashmead). Change from **aciculatus**. Ariz.

**acrobasisidis** (Cushman).

Biology: Nickels, Pierce and Pinkney, 1950. U. S. Dept. Agr. Tech. Bul. 1011: 6-8.

**agilis** (Cresson). Que., Alta., Sask.

**annulipes** (Cresson). Que. Hosts: *Grapholitha interstinctana* Clem., *Archips conflictana* (Wlkr.), *Sciaphila duplex* (Wlsm.), *Anacamptis innocuella* (Zell.).

**bakeri** (Muesebeck). Alaska.

**bicolor** (Provancher). Preocc. Replaced by **binominata** Muesebeck.

**binominata** Muesebeck, n. name. Replaces **bicolor** (Provancher), preocc.

**buttricki** (Viereck). Hosts: *Phalonia rutilana* (Hbn.), *P. voxcana* Kearf., *P. straminoides* (Grote), *Acrobasis rubrifasciella* Pack.

**calcarata** (Cresson). Change from **calcaratus**. Mich. Hosts: *Mineola Indiginella* (Zell.), *Epismus argutanus* (Clem.).

**californica** (Muesebeck). Change from **californicus**.

**cincta** (Cresson). Change from **cinctus**. Hosts: *Gnorimoschema chenopodiella* Busck, *Coleophora atlantica* Heinr., *C. salicivorella* McD., *C. alniella* Heinr., *C. laricella* (Hbn.), *C. salmani* Heinr., *C. tiliæfoliella* Clem., *Chrysopora hermannella* (F.), *Dichomeris ligulella* Hbn., *Cnephasia longana* Haw., *Anacamptis fragariella* Busck.

**conspicua** (Wesmael). Change from **conspicuus**.

**difficilis** (Muesebeck). Tex.

**discolor** (Cresson). N. C.

**diversa** (Muesebeck). Change from **diversus**. Conn., N. Y., Va.

**\*festiva** Muesebeck. N. Y., N. J.; China, India. Hosts: *Grapholitha molesta* (Busck), *G. pruinivora* (Walsh).

*Agathis festiva* Muesebeck, 1953. Ent. Soc. Wash. Proc. 55: 149. ♀ ♂.

**floridana** (Muesebeck). Change from **floridanus**.

**gibbosa** (Say). Change from **gibbosus**. Host: *Coleophora* sp.

*Agathis dispar* Provancher. Change *Agathis* to *Microdus*.

Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 42.

**imitata** (Cresson). Change from **imitatus**.

**immaculata** (Gahan). Change from **immaculatus**.

**laticincta** (Cresson). Change from **laticinctus**.

Biology: Dondale, 1954. Canad. Ent. 86: 40-44.—Stultz, 1954. Canad. Ent. 86: 96-98.

**nigricoxa** (Provancher). Change from **nigricoxus**.

**nigripes** Cresson. Ariz.

**nigrotrochanterica** (Viereck). Change from **nigrotrochantericus**. Ariz.

**petiolata** (Muesebeck). Change from **petiolatus**.

**pini** (Muesebeck).

Biology: Miller, 1953. Ohio Jour. Sci. 53: 62.

**pumila** (Ratzeburg). Change from **pumilus**.

**reticulata** (Muesebeck). Change from **reticulatus**.

**rubripes** Cresson. Host: *Coleophora cratipennella* (Clem.)

**rufofemorata** (Muesebeck). Change from **rufofemoratus**.



**rugareolata** (Viereck). Change from *rugareolatus*.

**sancta** (Say). Change from *sanctus*. Fla.

**simillima** (Cresson). Change from *simillimus*. Wash. Host: *Epiblema otiosana* (Clem.)

**spiracularis** (Muesebeck). Oreg., Ariz.

**stigmatera** (Cresson). Change from *stigmaterus*.

Biology: Jaynes, 1933. U. S. Dept. Agr. Tech. Bul. 363: 18-19.

**terminata** (Cresson). Change from *terminatus*.

**texana** (Cresson). Change from *texanus*. Host: *Sylepta silicalis* (Gn.).

Biology: Heedham, 1955. Ecology 36: 349-350.

**usitata** (Gahan). Change from *usitatus*.

#### Genus ELASMOSOMA Ruthe, pp. 121-122

**pergandei** Ashmead. B. C.

#### Genus MIRAX Holiday, p. 122

**aspidiscae** Ashmead. Que., Fla.

**lithocolletidis** Ashmead. Ont. Host: *Leucanthiza dircella* Braun.

#### Genus ADELIUS Holiday, p. 123

**fasciipennis** (Rohwer). Wis.

#### Genus APANTELES Foerster, pp. 123-135

**acaudus** (Provancher). Wis. Host: *Calocalpe prunivivora* Ferg.

\***aciculatus** (Ashmead). Tex.; Br. West Indies, Canal Zone, Costa Rica.

*Urogaster aciculatus* Ashmead, 1900. Ent. Soc. London Trans., 1900, pt. 2, p. 289. ♂.

**acronyctae** Riley. Ont. Hosts: *Acrionicta dactylina* (Grote), *A. lepusculina* Gn.

**alaskensis** (Ashmead). Mich., B. C. Hosts: *Gabriola dyari* Tay., *Oporinia autumnata* (Gn.).

**aletiae** Riley. Cuba. Host: *Gonodonta nutrix* (Stoll).

**alticola** (Ashmead). N. B., Colo. Host: *Amathes collaris* (G. and R.).

**anisotae** Muesebeck. Ont. Host: *Anisota rubicunda* (F.).

**aristoteliae** Viereck. N. B., Ont. Host: *Choristoneura fumiferana* (Clem.).  
Delete *Grapholitha molesta* (Busck).

**atalantae** (Packard). Alta., Sask. Host: *Polygonia* sp.

**autographae** Muesebeck. Newfoundland.

**bedelliae** Viereck. Ont. Host: *Lithocolletis tremuloidiella* Braun.

**bushnelli** Muesebeck. Iowa. Host: *Dioryctria disclusa* Heinr.

\***caberatae** Muesebeck. Calif. (Carlsbad). Host: *Sabulodes caberata* (Gn.).

*Apanteles caberatae* Muesebeck, 1956. Pan-Pacific. Ent. 32: 26. ♀ ♂.

**cacociae** Riley. Hosts: *Sciaphila duplex* (Wlsm.), *Grapholitha molesta* (Busck).

**californicus** Muesebeck. Idaho, Alta., B. C., Ont., Que. Hosts: *Recurvaria gibsonella* Kearf., *Recurvaria* n. sp.

**cerurae** Muesebeck. Que., Ont.

**cingiliae** Muesebeck. N. S., Que., Ont. Hosts: *Nepytia canosaria* (Wlkr.), *Eupithecia gibsonata* Tay.

**clisiocampae** Ashmead.

Biology: Fiske, 1903. N. H. College Agr. Expt. Sta. Tech. Bul. 6: 214-216.

- cockerelli** Muesebeck. Oreg. Host: *Isophrictus* sp. on *Helianthus*.
- compressiventris** Muesebeck. N. W. T. (Keewatin), Que.
- conanchetorum** Viereck. N. S.
- congregatus** (Say). Hosts: *Lapara bombycoides* Wlkr., *Hemaris diffinis* (Bdv.).
- consimilis** Viereck. Man.
- crassicornis** (Provancher). Mass., Ariz.
- cyaniridis** Riley. Que.
- diacrisiae** Gahan. Que., Ont. Hosts: *Hemerocampa plagiata* (Wlkr.), *Estigmene acraea* (Drudry).
- diatraeae** Muesebeck. Mexico. Host: *Diatraea lineolata* (Wlkr.).
- dignus** Muesebeck.  
Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 43 (as *Apanteles* sp.).
- dolicocephalus** Muesebeck. Ill., Mich.
- electrae** Viereck. B. C.
- empretiae** Viereck. Ala., La.
- ensiger** (Say). Host: *Crambus mutabilis* Clem.
- epinotiae** Viereck. Hosts: *Dichomeris ligulella* Hbn., *Acrobasis caryae* Grote.  
Biology: Nickels, Pierce, and Pinkney, 1950. U. S. Dept. Agr. Tech. Bul. 1011: 4-6.
- etiellae** Viereck. Mex.
- euchaetis** Ashmead. Tex.
- feltiae** Viereck. Sask. Host: *Pyrausta ainsliei* Heinr.
- fiskei** Viereck. Host: *Olene plagiata* (Wlkr.)
- fumiferanae** Viereck. Transcontinental in Canadian Zone. Hosts: *Acleris variana* (Fern.), *Choristoneura pinus* Freem.  
Biology: McGugan, 1955. Can. Ent. 87: 179-187.
- glacialis** (Ashmead). B. C. Host: *Hyphantria textor* (Harr.).
- glomeratus** (Linnaeus).  
Biology: Johansson, 1951. Norsk. Ent. Tidsskr. B. 7(4-5): 145-186.
- griffini** Viereck. Wash., Tex.
- halisidotae** Muesebeck. Que., Ont., Man.
- hallii** (Packard). N. W. T. (Arctic regions).
- \*harrisinae** Muesebeck. Ariz., Conn. Host: *Harrisina brillians* B. and McD.  
*Apanteles harrisinae* Muesebeck, 1953. Ent. Soc. Wash. Proc. 55: 150.  
♀ ♂.
- \*herbertii** Ashmead. West Indies, Fla. Host: *Nystalea nysius* Cram.  
*Apanteles herbertii* Ashmead, 1900. Ent. Soc. London Trans., 1900, pt. 2, p. 279. ♀.
- insignis** Muesebeck. B. C. Host: *Platyptilia punctidactyla* Haw.
- laeviceps** Ashmead. Hosts: *Euxoa ochrogaster* (Gn.), *Feltia ducens* Wlkr., *Spaelotis clandestina* (Harr.), *Anacamptodes vellivolata* (Hulst), *Lacinipolia meditata* (Grote), *Eucirrhoedia pampina* (Gn.).
- laspeyresiae** Viereck. B. C. Host: *Laspeyresia piperana* (Kearf.).
- longicornis** (Provancher). N. B. Host: *Syngrapha epigaea* (Grote).
- lunatus** (Packard). Fla. Tex.
- marginiventris** (Cresson). Wis.
- medicaginis** Muesebeck. Ariz.

**militaris** (Walsh). Minn.

**memoriae** Ashmead. N. S. to Sask. Hosts: *Eupithecia filmata* Pears., *E. gibsonata* Tay., *E. palpata* Pack., *Erannis tiliaria* (Harr.), *Alsophila pometaria* (Harr.), *Operophtera brumata* (L.), *Semiothisa granitata* (Gn.), *Haploa lecontei* (Guer.-Men.).

**neomexicanus** Muesebeck. Prince Edward Island to B. C., Calif.

**nephopteris** (Packard). Ont. Host: *Plodia interpunctella* (Hbn.)

**ornigis** Weed. N. S.; Ark., Utah, Oreg. Hosts: *Gracilaria burgessiella* Zell., *Lithocolletis blancardella* (F.), *L. malimalifoliella* Braun.

**paleacritae** Riley. N. S. to B. C. Hosts: *Lambdina fiscellaria* (Gn.), *Operophtera brumata* (L.), *Erannis tiliaria* (Harr.), *Ectropis crepuscularia* (D. and S.), *Semiothisa granitata* (Gn.), *S. sexmaculata* (Pack.), *Zale* sp., *Bomolocha deceptalis* (Wlkr.), *Nepytia canosaria* (Wlkr.), *Oporinia autumnata henschawii* Swett.

**paralechia** Muesebeck. N. B., Ont. Hosts: *Argyresthia thuiella* (Pack.), *A. freyella* Wlsm., *Recurvaria thujaella* Kearf.

**parastichtidis** Muesebeck. N. S. to B. C. Hosts: *Hydriomena divisaria* (Wlkr.), *H. renunciata* (Wlkr.).

**petrovae** Walley. Newfoundland, N. B. Hosts: *Choristoneura fumiferana* (Clem.), *C. pinus* Freem.

**phigaliae** Muesebeck. Ont., N. B.

**phobetri** Rohwer. Newfoundland to Alta. Hosts: *Halisidota harrisii* Walsh, *H. caryae* (Harr.), *Apanteles* sp., *Panthea acronyctoides* (Wlkr.).

**pholisora** Riley. Host: *Staphylus hayhursti* (Edw.).

**plathypenae** Muesebeck. B. C. Host: *Autographa californica* (Speyer).

**politus** Riley. Fla.

**polychrosidis** Viereck. N. B., Que. Hosts: *Choristoneura fumiferana* (Clem.), *C. pinus* Freem., *Anacamptis innocuella* (Zell.).

**pyralidis** Muesebeck. Wis.

**pyraustae** Viereck. Ont.

**pyrophilae** Muesebeck. Ont.

**rohweri** Muesebeck. N. B., Ont. Hosts: *Argyresthia* sp. on *Thuja*, *Lithocolletis tremuloidiella* Braun.

**rufocoxalis** Riley. Tex.

**sarrothripae** Weed. Ont. Hosts: *Lithocolletis tremuloidella* (Braun), *Nycteola frigidana* (Wlkr.).

**schaffneri** Muesebeck. Va. Hosts: *Prolimacodes scapha* Harr.

**schizurae** Ashmead. Host: *Heterocampa guttivitta* (Wlkr.).

**scitulus** Riley. Ont., Wis. Hosts: *Olene plagiata* (Wlkr.), *Anomogyne elimata* (Gn.)

**solitarius** (Ratzeburg), Que., P. E. I.

Biology: Parker, 1935. U. S. Dept. Agr. Tech. Bul. 477.

**terminalis** Gahan. Fla., Colo.

**thujae** Muesebeck. Ont. Host: *Argyresthia thuiella* (Pack.).

**tischeriae** Viereck. Host: *Ornix* sp.

**websteri** Muesebeck. N. B., Ark. Host: *Protoarmia porcelaria* (Gn.).

**yakutatensis** Ashmead. Que.

#### Genus MICROGASTER Latreille, pp. 135-137

**bakeri** Muesebeck. Fla.



**calliptera** Say. Fla.

**canadensis** Muesebeck. Colo., N. B. to B. C. Hosts: *Ancylys comptana fragariae* (W. and R.), *Argyrotoxa albicomana* (Clem.) *Sparganothis diluticostana* (Wlsm.), *Sciaphila duplex* (Wlsm.), *Epinotia sollicitana* (Wlkr.), *Acleris variana* (Fern.), *Choristoneura fumiferana* (Clem.), *Anacamptis innocuella* (Zell.), *Archips rosana* (L.).

**carinata** Packard. Hungary. There is some doubt now that this species occurs in the United States. The type locality was not mentioned in the original description. The only known specimens, in addition to the types, are a good series in the U. S. National Museum reared from the type host in Hungary.

**ecdylotophae** Muesebeck. Hosts: *Gracilaria elongella* (L.), *Coleophora asterophagella* (McD.).

**epagoges** Gahan. Ont. Host: *Sparganothis tristriata* Kearf.

**facetosa** Weed. Ga. Hosts: *Elaphria versicolor* (Grote), *Orthosia revicta* (Morr.).

**femoralis** Muesebeck. Idaho, Oreg., Wash.

\***mediata** Cresson. Fla.; Cuba, Mex.

*Microgaster mediata* Cresson, 1865. Ent. Soc. Phila. Proc. 4: 66. ♂.

**melligaster** Provancher. Va., Mich.

**pantographae** Muesebeck. Mich., Mo. Host: *Argyrotaenia velutinana* (Wlkr.).

**peroneae** Walley. Labrador to B. C.; Maine, Mich. Host: *Sparganothis acerivorana* Mackay.

**phthorimacae** Muesebeck. Host: *Amorbia essigana* Busck.

Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 44-45 (as *Microgaster* sp.).

**schizurae** Muesebeck. B. C.

### **Genus MICROPLITIS Foerster, pp. 137-139**

**bradleyi** Muesebeck. Utah; B. C. Host: *Feralia jocosa* (Gn.).

**brassicae** Muesebeck. Host: *Autographa californica* Speyer.

**ceratomiae** Riley. Hosts: *Protoparce sexta* (Johan.), *Sphinx kalmiae* J. E. Smith.

**hyphantriae** Ashmead. Hosts: *Lithophane antennata* (Wlkr.), *Amphipyra pyramidoides* Gn., *Acronicta grisea* Wlkr., *Graptolitha* sp.

**kewleyi** Muesebeck. Que.

**mamestrae** Weed. Wis., Utah.

**plutellae** Muesebeck. Ont.; N. Y., S. C., Utah.

**4-dentatus** (Provancher). Host: *Simyra henrici* (Grote).

**scutellatus** Muesebeck. Maine, N. Y., Mich.

**stigmaticus** Muesebeck. Colo.

### **Genus CARDIOCHILES Nees, pp. 139-141**

**explorator** (Say). Okla., Wash., Calif.

**magnus** Mao. Ariz.

**minutus** (Cresson). Que.; Mich.

**pullus** Mao. Fla.

**tibiator** (Say). Mich.

**viator** (Say). Wash.

**Genus PROTEROPS Wesmael, p. 141**

*californicus* Cresson. Wyo.

**Genus SIGALPHUS Latreille, p. 142**

*bicolor* (Cresson). Que., Ont., Man. Host: *Acrionicta clarescens* Gn.

**Genus PHANEROTOMA Wesmael, pp. 142-143**

\**Phaenotoma* Ashmead, 1894. Linn. Soc. London, Jour., Zool. 25: 123. Misspelling.

*fasciata* Provancher. Oreg., Wash. Host: *Grapholitha interstinctana* (Clem.)

*franklini* Gahan. Que.; Md.

\**grapholithae* Muesebeck. Japan, China; N. J., N. Y., Md., Conn., Va. Hosts: *Grapholitha molesta* (Busck), *G. prunivora* (Walsh), *Carpocapsa pomonella* (L.).

*Phanerotoma grapholithae* Muesebeck, 1933. Ent. Soc. Wash. Proc. 35: 50. ♀ ♂.

\**longicauda* Wally. N. S., Que., Ont., Alta., Pa., Md., Fla., Mich., Ill., Iowa. Host: *Carposina* sp.

*Phanerotoma longicauda* Walley, 1951. Canad. Ent. 83: 306. ♀ ♂.

\**thapsina* Walley. Tex.

*Phanerotoma thapsina* Walley, 1951. Canad. Ent. 83: 305. ♀ ♂.

*tibialis* (Haldeman). Que. Delete Oreg. and Wash.

**Genus ASCOGASTER Wesmael, p. 143**

*flaviceps* Ashmead. N. Y.

*quadridentata* Wesmael. Ont., Wash. Hosts: *Paralobesia viteana* (Clem.), *Grapholitha prunivora* (Walsh).

*rufa* Muesebeck and Walkley. Colo.

**CHELONUS subgenus CHELONUS Panzer, pp. 143-144**

\**exogyrus* Viereck. Syn. of *texanus* Cresson.

*sericeus* (Say). N. H., Ill., Ariz.

\**texanoides* Viereck. Syn. of *texanus* Cresson.

*texanus* Cresson. Hosts: *Peridroma margaritosa* (Haw.), *Prodenia eridania* Gn.

\**Chelonus texanoides* Viereck, 1905. Kans. Acad. Sci. Trans. 19: 286. ♀. N. syn. (based on type exam. by C. F. W. Muesebeck).

\**Chelonus exogyrus* Viereck, 1905. *Idem*, p. 287. ♀. N. syn. (based on type exam. by C. F. W. Muesebeck).

Biology: Pierce and Holloway, 1912. Jour. Econ. Ent. 5(6): 425-428. —Ulyett, 1949. Canad. Ent. 81: 25-44.

**CHELONUS subgenus MICROCHELONUS Szépligeti, pp. 145-146**

*nanus* Provancher. Change *Chelanus nana* in orig. cit. to *Chelonus nanus*.

*phthorimaeae* Gahan.

Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 40-41 (as *Chelonus shoshoneanorum* Vier.).

**\*Genus CHOREBIDELLA Riegel**

*Chorebidella* Riegel, 1950. Ent. News 61: 125.

Type: *Chorebidella bergi* Riegel. By monotypy and orig. desig. Place as first genus under Dacnusinæ, p. 146.

\**bergi* Riegel. Mich., Conn., N. Y., Alaska. Hosts: *Hydrellia cruralis* Cress. and *H. ascita* Cress.

*Chorebidella bergi* Riegel, 1950. Ent. News 61: 128. ♂ ♀.

**Genus DACNUSA Haliday, pp. 146-147**

\**gracilis* (Nees). B. C., Ont.; Europe. Host: *Psila rosae* (F.).

*Alysia gracilis* Nees, 1834. Hym. Ichn. Aff. Monogr., v. 1, p. 257. ♀ ♂.

*parva* (Provancher). Change Faune Ent. Canada, Hym., p. 805 to Nat. Canad. 14: 18.

**Genus ALYSIA Latreille, pp. 149-150**

*manducator* Panzer. Change to *manducator* (Panzer).

*provancheri* Dalla Torre. Transf. to *Idiasta* Foerster, p. 150.

*ridibunda* Say. After *ridibunda* Say change 1828 to 1829.

**Genus IDIASTA Foerster, p. 150**

*provancheri* Dalla Torre. Transf. from *Alysia* Latreille, p. 149. (Based on examination of type by C. F. W. Muesebeck.)

**Genus GNAPTODON Haliday, p. 153**

*nepticulae* (Rohwer). N. Mex.

**Genus OPIUS Wesmeal, pp. 153-157**

*aberrans* Viereck. Mich.

\**alloeus* Muesebeck. Maine, N. Y., Conn., Fla. Host: *Rhagoletis pomonella* (Walsh).

*Opius alloeus* Muesebeck, 1956. Ent. News 67: 101. ♀ ♂.

*amplus* Ashmead. Mich.

*appalachicola* (Viereck). Transf. to *Heterospilus*, p. 179.

*cinctus* Provancher. Que., Sask.

*crassiceps* Gahan. Mich.

*dimidiatus* (Ashmead). Tex.

*downesi* Gahan. Ont.

*ferrugineus* Gahan. S. D. Delete "west to Oreg." from range. Delete *Rhagoletis pomonella* (Walsh) from hosts.

Taxonomy: Muesebeck, 1956. Ent. News 67: 99-101.

*foersteri* Gahan. Wis., Tex.

*fulvicollis* Thomson. Que., Ont.

*gahani* Muesebeck. Tenn.

*lectus* Gahan. Que.

*mandibularis* Gahan. Fla., Calif., Cuba. Host: *Agromyza* sp. on *Aster*.

*melleus* Gahan. N. S., Minn. Host: *Rhagoletis cingulata* (Loew).

\**muliebris* Muesebeck. Wash., Oreg., Calif. Hosts: *Rhagoletis cingulata* *indifferens* Curran, *R.* sp. on *Prunus emarginata*.

*Opius muliebris* Muesebeck, 1956. Ent. News 67: 100. ♀.

*pegomyiae* Gahan. Wis.

*provancheri* Dalla Torre. Md., Va.

*rosicola* Muesebeck. Oreg., Wash. Host: *Rhagoletis cingulata* *indifferens* Curran.

*secundus* (Viereck). Transf. to *Parahormius*, p. 176.

*striativentris* Gahan. S. C., Ohio.

*suturalis* Gahan. Hosts: *Liriomyza subpusilla* (Frost), *L. agraria* Frick.

**Genus VIPIO Latreille, pp. 157-158**

*coloradensis* Ashmead. Ariz.



*erythrus* Viereck. Transf. to *Iphiaulax*, p. 158.

*piceipectus* Viereck. Delete Idaho and Oreg. from range.

*rugator* (Say). Fla.

**Genus IPHIAULAX Foerster, pp. 158-159**

*agrili* (Ashmead). N. B., Ariz. Host: *Oberea praelonga* Csy.

*americanus* Provancher. N. Y.

*epicus* (Cresson). Iowa, Ill., Mich., Fla.

*erythrus* (Viereck), n. comb. Transf. from *Vipio*, p. 158 (based on type exam. by C. F. W. Muesebeck).

**Genus ATANYCOLIMORPHA Viereck, p. 159**

*dissitus* (Cresson). Wyo., Utah.

*provancheri* (Dalla Torre). La.

**Genus CYANOPTERUS Haliday, p. 159**

*laevis* (Provancher). Maine.

**Genus COMPSOBRACON Ashmead, p. 160**

.. *Macroneura* Szépligeti. Change to *Macronura*.

**Genus COELOIDES Wesmael, pp. 160-161**

*brunneri* Viereck. B. C., Oreg.

*dendroctoni* Cushman. Colo., Alaska. Host: *Dendroctonus engelmanni* Hopk.,  
*Ips pilifrons* Swaine.

*pissodis* (Ashmead). Wis., Tex. Hosts: *Dendroctonus frontalis* Zimm.,  
*Pissodes nemorensis* Germ.

*scolyti* Cushman. Idaho. Host: *Dendroctonus pseudotsugae* Hopk.

**Genus ATANYCOLUS Foerster, pp. 161-163**

*charus* (Riley). N. B. Host: *Agrilus anxius* Gory.

*lissogastrus* Shenefelt. Pa.

*longicauda* Shenefelt. N. J., Mich.

*nigropyga* Shenefelt. N. Y.

*tranquebaricae* Shenefelt. Bahamas (Brit. W. I.).

**Genus BRACON Fabricius, pp. 163-169**

*Amicoplidea* Ashmead, p. 174, synonymized under *Bracon* by Muesebeck, 1956. Ent. Soc. Wash. Proc. 58: 34.

*americanus* (Ashmead). N. S., Yukon. Delete Mexico from range.

*apicatus* Provancher. Mich.

*atricollis* Ashmead. N. J., Fla., Kan.

*auripes* Provancher. Syn. of *palliventris* (Provancher).

*brachyurus* Ashmead. Iowa.

*caulicola* (Gahan). Hosts: *Heliodines ionis* Clarke, *Onychobaris subtonsa* Lec.

*cerambidiphagus* (Muesebeck). Ont. Host: *Oberea praelonga* Csy.

*curtus* (Provancher). Mich.

*erucarum* (Cushman). Ariz., Calif.

*gastroideae* Ashmead. Pa., Kan., Tex.

- gelechia** Ashmead. N. S. to B. C.; Bermuda, Mexico, India. Hosts: *Pectinophora gossypiella* (Saund.), *Gelechia hibiscella* Busck, *Exoteleia dodecella* (L.), *Spilonota ocellana* (D. and S.), *Rhyacionia buoliana* (Schiff.), *Heliodines nyctaginella* Gibson.
- geraei** (Muesebeck). Kans.
- hebetor** Say. Host: *Gnorimoschema operculella* (Zell.).  
 Physiology: Beard, 1952. Conn. Agr. Exp. Sta. Bul. 562.  
 Biology: Graf, 1917. U. S. Dept. Agr. Bul. 427: 39-40 (as *Habrobracon johannseni* Vier.).  
 Histology and Cytology: Grosch, 1952. Jour. Morph. 91: 221-236 (as *Habrobracon juglandis* Ashm.).
- hyslopi** (Viereck). Utah. Host: *Cnephasia longana* (Haw.).
- juncicola** Ashmead. N. S. Host: *Coleophora viburniella* Clem.
- \*lissogaster** Muesebeck. Mont. Host: *Cephus cinctus* Nort.  
*Bracon lissogaster* Muesebeck, 1953. Ent. Soc. Wash. Proc. 55: 150. ♀ ♂.
- mellitor** Say. Hosts: *Grapholitha molesta* (Busck), *Chalcodermus aeneus* Boh., *Laspeyresia caryana* (Fitch).
- meromyzae** Gahan. Mich.
- montowesi** (Viereck). Ont.
- nevadensis** Ashmead. Wash.
- nuperus** Cresson. Ont. Hosts: *Terellia florescentiae* (L.), *Herina frondescens* (L.).
- oenotherae** (Muesebeck). Ont., Tex.
- palliventris** (Provancher). Ont., N. Y., Mass., Ohio. Host: *Epiblema strenuana* (Wlkr.).  
*Phylax palliventris* Provancher, 1880. Transf. with genus *Amicoplidea* Ashmead, from p. 174 (teste Muesebeck, 1956. Ent. Soc. Wash. Proc. 58: 34).  
*Bracon auripes* Provancher (syn. by Muesebeck, op. cit. supra).
- pini** (Muesebeck). Ont., B. C. Hosts: *Pissodes sitchensis* Hopk., *Podapion gallicola* Riley.
- platynotae** (Cushman). Host: *Lineodes integra* (Zell.).
- podunkorum** (Viereck). Mich.
- poliventris** (Cushman). N. S. to B. C. Host: *Choristoneura pinus* Freem.
- punctatus** (Muesebeck). Ala., Ill., Tex., Wis. Host: *Anthonomus nubilus* Lec.
- pygmaeus** Provancher. B. C.
- pyralidiphagus** (Muesebeck). Mich., Tex., Ariz.
- quinnipiacorum** (Viereck). Mich., Tex., Ariz.
- rhyacioniae** (Muesebeck). Que. to Sask. Hosts: *Dioryctria auranticella* (Grote), *Eucosma tucullionana* Heinr.
- rudbeckiae** (Muesebeck). Kan., Ariz. Host: *Anthonomus squamosus* Lec.
- tenuiceps** (Muesebeck). Kans., Tex.
- thurberiphagae** (Muesebeck). West Indies. Hosts: *Anthonomus grandis thurberiae* Pierce, *Ancylostomia stercora* (Zell.).
- variabilis** (Provancher). Host: *Acrobasis caryae* Grote.  
 Biology: Nickels, Pierce and Pinkney, 1950. U. S. Dept. Agr. Tech. Bul. 1011: 9-12.
- xanthonotus** Ashmead. Host: *Hemerocampa pseudotsugata* (McD.).

#### Genus SPATHIUS Nees, pp. 169-170

**canadensis** Ashmead. W. Va. Host: ? *Magdalis* sp. in elm.

**Genus ROGAS Nees, pp. 170-172**

**aciculatus** (Cresson). Host: *Agrotis jaculifera* Gn.

\***borealis** Thomson. Europe, Greenland.

*Rogas (Aleiodes) borealis* Thomson, 1891. Opuscula entomologica, Fasc. 16: 1679. ♀.

**burrus** (Cresson). S. Dak.

**graphicus** Cresson. Iowa, Colo.

**mandibularis** Cresson. Miss., Ohio.

**molestus** Cresson. Host: *Trichoplusia ni* (Hbn.).

**parasiticus** (Norton). Host: *Syngrapha epigaea* (Grote).

**terminalis** (Cresson). Host: *Amathes smithi* (G. and R.).

**Genus PELECYSTOMA Wesmael, p. 172**

**discoideum** (Cresson). Fla. Mich.

**harrisinae** (Ashmead). Mexico, Cuba.

**Genus PETALODES Wesmael, p. 172**

**palmaris** Walley. Ont., Utah. Host: *Nycteola cinereana* Neum. and Dyar.

**Genus BUCCULATRIPLEX Viereck, p. 173**

**bucculatricis** (Ashmead). Mich., Wis., Oreg. Host: *Heterarthrus nemoratus* (Fall.).

**Genus ONCOPHANES Foerster, p. 173**

**americanus** (Weed). Hosts: *Choristoneura fumiferana* (Clem.), *Argyrotaenia velutinana* (Wlkr.), *Eulia ministrana* (L.).

**betulae** Muesebeck. Mich. Host: *Anthophila pariana* (Clem.).

**nigriventris** Muesebeck. Wis.

**Genus CLINOCENTRUS Haliday, p. 174**

**mellipes** (Ashmead). N. Y., Va., D.C.

**tarsalis** Ashmead. Mo.

**Genus XENOSTERNUM Muesebeck, p. 174**

**ornigis** Muesebeck. Host: *Fascista cercerisella* (Chamb.).

**Genus COLASTES Haliday, p. 174**

**propinquus** (Walley). Que. (Pt. Harrison).

**Genus RHYSIPOLIS Foerster, p. 174**

**pallipes** (Provancher). N. H., Mich.

**\*Genus XENARCHA Foerster**

(= *Zamegaspilus* Ashmead, p. 175)

*Xenarcha* Foerster, 1862. Naturh. Ver. Rheinlande Verh. 19: 235.

Type: *Colastes lustrator* Haliday. By monotypy and orig. desig.

Replaces *Zamegaspilus* Ashmead, p. 175, which falls as a synonym of *Xenarcha* (*teste* Muesebeck, 1956. Ent. Soc. Wash. Proc. 58: 34).

**hopkinsi** (Ashmead). Md., N. C., Tenn., Iowa. Transf. from *Zamegaspilus* Ashmead through synonymy of that genus with *Xenarcha* Foerster.

**Genus HORMIUS Nees, pp. 175-176**

**dispar** (Brues). N. C., Mich.



**Genus PARAHORMIUS Nixon, p. 176**

*secundus* (Viereck), n. comb. Transf. from *Opius*, p. 157 (based on type exam. by C. F. W. Muesebeck).

**Genus DORYCTES Haliday, pp. 176-177**

*atripes* (Provancher). Va., Mich.

*carinatus* (Ashmead). Va., D. C.

*fartus* (Provancher). N. H.

*pacificus* (Provancher). Calif.

**Genus GLYPTODORYCTES Ashmead, p. 178**

*caryae* (Ashmead).

*Hormiopterus claripennis* Brues. N. syn. Transf. from *Rhaconotus*, p. 181 (based on type exam. by C. F. W. Muesebeck).

**Genus HETEROSPILUS Haliday, pp. 178-180**

*appalachicola* (Viereck), n. comb. Transf. from *Opius*, p. 154 (based on type exam. by C. F. W. Muesebeck).

*bruchii* Viereck. Va.

*mordellistenae* Viereck. Ont.

**Genus DENDROSOTER Wesmael, p. 181**

*sulcatus* Muesebeck. Fla., Wis.

**Genus RHACONOTUS Ruthe, p. 181**

*claripennis* (Brues). Transf. to *Glyptodoryctes*, p. 178, where it is a n. syn. of *caryae* (Ashmead).

*graciliformus* (Viereck). Ohio

**Genus HISTEROMERUS Wesmael, p. 181**

*canadensis* Ashmead. N. H., N. Y., W. Va. Host: *Anobium punctatum* DeG.

**Genus ODONTOBRACON Cameron, pp. 181-182**

*elaphidiovorus* Rohwer. Ohio, Wis.

\**grandis* Ashmed. Ariz., Baja Calif.

*Odontobracon grandis* Ashmead, 1894. Calif. Acad. Sci. Proc. 4: 122. ♀.

**Genus ACRISIS Foerster, p. 182**

*americana* (Ashmead). Pa.

**Genus COSMOPHORUS Ratzeburg, p. 183**

*Cosmophorinus* Viereck, 1925. N. syn. (on the basis of recent comparison with authentic material of *Cosmophorus* from Europe, by C. F. W. Muesebeck).

Delete "No North American species," and transfer here all species listed under *Cosmophorinus* Viereck, pp. 183-184.

**Family ICHNEUMONIDAE**

Taxonomy: Smith and Shenefelt, 1955. Wis. Acad. Sci. Arts, Letters, Trans. 44: 165-219, 10 pls. (key to subfamilies and tribes).

**Tribe EPHIALTINI**

(= *Pimplini* of Catalog)

**Genus SCAMBUS Hartig, pp. 185-187**

*bicoloripes* (Ashmead). Transcont. in Canada. Host: *Laspeyresia nigricana* (Steph.)

\**brevicornis* (Gravenhorst). Greenland.

*Pimpla brevicornis* Gravenhorst, 1829. Ichn. Europaea, v. 3, p. 211.

♂ ♀.

*hispa* (Harris). Host: *Paraclemensia acerifoliella* (Fitch).

**Genus CALLIEPHIALTES Ashmead, pp. 187-188**

*comstockii* (Cresson). Fla. Host: *Dioryctria disclusa* Heinr.

Biology: Miller, 1953. Ohio Jour. Sci. 53 (1): 60.

*grapholithae* (Cresson). Hosts: *Acrobasis caryae* (Grote), *Agathis acrobasisidis* (Cush).

Biology: Nickels, Pierce, and Pinkney, 1950. U. S. Dept. Agr. Tech. Bul. No. 1011, pp. 12-14.

**Genus EPHIALTES Gravenhorst**

(= *Pimpla* Fabricius of Catalog, pp. 188-189)

Replace first three lines of generic synonymy with:

*Ichneumon* of authors.

*Pimpla* of authors.

*Ephialtes* Gravenhorst, 1829. Ichn. Europaea, v. 1, Conspectus, p. 64; v. 3, p. [224].

Type: *Ichneumon manifestator* Linnaeus. Desig. by Int. Comn. Zool. Nomencl., Op. 159, 1945.

Delete parentheses and "n. comb." in each of following Catalog entries so they appear as below:

*brevis* Morley.

*cephalotes* Holmgren.

*dolichosoma* Viereck.

*gigas* Walsh.

*imperator* Kriechbaumer.

*macer* Cresson.

*perlongus* Cresson.

*pusio* Walsh.

*pygmaeus* Walsh.

*tenuiventris* Holmgren.

**Genus ISEROPUS Foerster, pp. 189-190**

*californiensis* Cushman. Wash. Host: *Malacosoma pluviale* (Dyar).

**Genus PERITHOUS Holmgren, p. 191**

*divinator* (Rossi). Tenn.

**Tribe POLYSPHINCTINI**

**Genus COLPOMERIA Holmgren, p. 192**

*kincaidii* (Ashmead).

\**Polysphincta albocoxalis* Ashmead MS, in Slosson, 1902. Ent. News 13: 320. Validated in syn. by Cushman, 1922. U. S. Natl. Mus. Proc. 61 (art. 8): 10.

**Genus POLYSPHINCTA Gravenhorst, p. 193**

\**Ephialtomorpha* Ashmead MS, in Slosson, 1906. Ent. News 17: 324. *Nom. Nud.*

*limata* Cresson.

\**Ephialtomorpha slossonae* Ashmead MS, in Slosson, 1906. Ent. News 17: 324. Validated in syn. by Cushman, 1922. U. S. Natl. Mus. Proc. 61 (art. 8): 12, 25.

Tribe PIMPLINI  
(= *Ephialtini* of Catalog)

Genus PIMPLA Fabricius  
(= *Coccygomimus* Saussure of Catalog, pp. 194-196)

Replace first two lines of synonymy with:

*Ephialtes* of authors.

*Pimpla* Fabricius [1804-1805]. Systema Piezatorium, p. 112.

Type: *Ichneumon instigator* Fabricius. Desig. by Int. Comn. Zool. Nomencl., Op. 159, 1945.

*aequalis* (Provancher). Delete parentheses.

\**aethiops* Curtis. Greenland.

*Pimpla aethiops* Curtis, 1828. British. Ent., v. 5, folio 214. ♀ ♂.

*aquilonia* Cresson. Change from *aquilonius* (Cresson).

*ellopieae* (Harrington). Delete parentheses.

*inflata* Townes. Change from *inflatus* (Townes).

\**marginella* Brullé. Cuba; Fla. (Miami).

*Pimpla marginella* Brullé, 1846. Hist. Nat. Ins., Hym., v. 4, p. 107. ♀.

*maura* Cresson. Change from *maurus* (Cresson).

*nuda* Townes. Change from *nudus* (Townes).

*pedalis* (Cresson). Delete parentheses. Host: *Malacosoma pluviale* (Dyar).

*puncipipes* (Cresson). Delete parentheses.

*sanguinipes* (Cresson). Delete parentheses. Host: *Malacosoma pluviale* (Dyar).

*silvicola* (Walley). Delete parentheses.

*sodalis* (Ruthe). Delete parentheses.

*tenuicornis* (Cresson). Delete parentheses.

\**turionellae* (Linnaeus). Introduced from Europe; recovered in Canada.  
Host: *Rhyacionia buoliana* (Schiff.)

*Ichneumon Turionellae* Linnaeus, 1758. Syst. Nat., ed. 10, p. 564, ♀ ♂.

Genus APECHTHIS Foerster  
(= *Ephialtes* Schrank of Catalog, p. 196)

Delete first two lines of generic synonymy. *Ephialtes* Schrank was suppressed by Int. Comn. Zool. Nomencl., Op. 159, 1945.

*pacificus* (Cushman). Delete parentheses.

Genus ITOPLECTIS Foerster, pp. 196-198

*conquisitor* (Say). Hosts: *Choristoneura pinus* Free., *Hyponomeuta multipunctella* Clem., *Rachiplusia* ou Gn.

\**Pimpla pictipes* Walsh, 1873. Acad. Sci. St. Louis 3: 135. ♀. Preocc.

\**Pimpla walshii* Dalla Torre, 1901. Cat. Hym. 3 (1): 454. N. name for *P. pictipes* Walsh.

\**maculator* (Fabricius). Oreg. (Marion Co.) (Introduced). Host: *Cnephasia* sp.

*4-cingulatus* (Provancher). Host: *Malacosoma pluviale* (Dyar).

*viduata* (Gravenhorst). Host: *Malacosoma pluviale* (Dyar).

Tribe NEOXORIDINI  
(= *Poemeniini* of Catalog)

Used by Clément, 1938, for this group.



**Genus POEMENIA Holmgren, p. 199**

*vancouveriensis* (Provancher).

*Euxorides vancouveriensis* Provancher, 1883. Change to *Euxorides vancouveriensis* Provancher, 1888.

**Tribe RHYSSINI****Genus RHYSSA Gravenhorst, p. 200**

*alaskensis* Ashmead. Wyo.

**Tribe THERONIINI****Genus THERONIA Holmgren, pp. 202-203**

*septemtrionalis* (Krieger).

*Neotheronia winnemanae* Viereck. Misspelled *winnamane* in Catalog.

**Tribe BRACHYCYRTINI**

Transf. with component genus and species to Cryptinae (= *Gelinae* of Catalog), p. 231, as first tribe in subfamily.

**Tribe LABENINI****Genus LABENA Cresson, pp. 203-204**

*tinctipennis* Rohwer. Host: *Dicerca horni* Crotch.

**Tribe XORIDINI****Genus XORIDES Latreille, pp. 204-206**

*calidus* (Provancher). Misspelled *callidus* in Catalog.

*californicus* (Cresson). Host: *Buprestis viridisuturalis* N. & W.

*insularis* (Cresson). Alaska.

**Genus ODONTOCOLON Cushman, pp. 206-207**

*atripes* (Rohwer). Wis.

*strangaliae* (Rohwer). Wis.

**Tribe ACAENITINI****Genus COLEOCENTRUS Gravenhorst, pp. 207-208**

*rufus* Provancher. Wis., Iowa.

**Genus AROTES Gravenhorst, p. 208**

*occipitalis* Cresson. Tenn.

**Tribe LYCORININI**

Transf. from p. 309, with its component genus and species.

**Subfamily COLLYRIINAE**

Transf. from p. 341.

**Genus COLLYRIA Schjødt**

Transf. from p. 341.

*calcitrator* (Gravenhorst). N. Dak. (Minot), N. J.

## Subfamily TRYPHONINAE

## Subfamily ADELOGNATHINAE

(= *Adelognathini* of Catalog)

Changed status. *Teste* Dr. J. R. T. Short, whose study of larvae of Ichneumonidae is awaiting publication. Place group after Tryphoninae, on p. 231.

## \*Tribe IDIOGRAMMATINI

Place in Tryphoninae before Stilbopini, p. 209, with its component genus and species.

## Genus IDIOGRAMMA Foerster

Taxonomy: Perkins, 1940. Entomologist 73: 55.—Cushman, 1942. Ent. Soc. Wash. Proc. 44: 54.

Transf. from Grypocentrini, p. 218.

*comstockii* Ashmead. Md.

\**contortae* Townes and Townes. Utah, Ariz., Calif.

*Idiogramma contortae* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 309, 310. ♀ ♂.

\**fraternus* Townes and Townes. Utah, Ariz.

*Idiogramma fraternus* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 309, 312. ♀ ♂.

## Tribe PHYTODIETINI

## NETELIA subgenus NETELIA Gray, pp. 213-216

*geminata* (Say). Change from *geminatus*.

*trituberculata* (Cushman). Change from *trituberculatus*.

## Tribe THYMARIDINI

(= *Eclytini* of Catalog)

## Genus NELIOPISTHUS Thomson, pp. 216-217

*semirufus* (Provancher).

\**Polysphincta erythropleura* Ashmead MS, in Slosson, 1896. Ent. News 7: 264; 1902, 13: 321. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art 8): 19.

## Tribe GRYPOCENTRINI

## Genus GRYPOCENTRUS Ruthe, p. 218

Taxonomy: Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: [301]-307.

\**barbatus* Townes and Townes. Calif., Alta.

*Grypocentrus barbatus* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 303, 304. ♀ ♂.

\**crassidens* Townes and Townes. Colo., Idaho.

*Grypocentrus crassidens* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 303. ♀ ♂.

\**spatulatus* Townes and Townes. Calif.

*Grypocentrus spatulatus* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 304, 305. ♂ ♀.

\**truncatus* Townes and Townes. N. Y.

*Grypocentrus truncatus* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 304, 305. ♀ ♂.

**\*Genus EAROBIA Townes and Townes**

*Earobia* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 303, 307.

Type: *Earobia minor* Townes and Townes. By monotypy and orig. desig.

Place in Grypocentrini after *Grypocentrus* Ruthe, p. 218.

\**minor* Townes and Townes. N. Y. (Ithaca).

*Earobia minor* Townes and Townes, 1951. Ent. Soc. Wash. Proc. 53: 302, 307. ♀ ♂.

**Genus IDIOGRAMMA Foerster, p. 218**

Transf. genus with its component species to Idiogrammatini (*q.v.*).

**Tribe TRYPHONINI****ERROMENUS subgenus ERROMENUS Holmgren, pp. 222-224**

*marginatus* Provancher.

*Erromenus marginatus* Provancher. Change to *Erronemus* (!) *marginatus*.

**ERROMENUS, subgenus ADERAEON Townes and Townes, p. 224**

*bedardi* Provancher.

*Erromenus Bedardi* Provancher. Change to *Erronemus* (!) *Bedardi*.

**Genus MONOBLASTUS Hartig, pp. 224-225**

*feria feria* (Davis). After *basilicus* Davis, change 1895 to 1897.

**TRYPHON subgenus SYMBOËTHUS Foerster, pp. 226-227**

*humeralis* Townes and Townes, 1950. Preocc. in *Tryphon* by Gravenhorst, 1829. Replaced by *townesi* n. name, *q.v.*

\**townesi* Walkley, n. name.

*Tryphon* (*Symboëthus*) *humeralis* Townes and Townes, 1950. Preocc.

**Tribe EXENTERINI**

(= *Cteniscini* of Catalog)

**Genus CTENISCUS Haliday, p. 227**

Change citation to read as follows:

*Cteniscus* Haliday, 1832. In Curtis, British Ent., v. 9, folio 399. Proposed as subgenus of *Tryphon* Fallén.

Type: *T[ryphon (Cteniscus)] aurifluus* Haliday. Orig. desig.

**\*Genus ORTHOMISCUS Mason**

*Orthomiscus* Mason, 1955. Canad. Jour. Zool. 33: 21, 63.

Type: *Orthomiscus platyura* Mason. Orig. desig.

Place in Exenterini after genus *Cteniscus* Haliday, p. 228.

\**leptura* Mason. Ont. and Que. to N. H. and Vt., also Calif.

*Orthomiscus leptura* Mason, 1955. Canad. Jour. Zool. 33: 64. ♀ ♂.

\**platyura* Mason. Que. to Md. and Mich., also Ala.

*Orthomiscus platyura* Mason, 1955. Canad. Jour. Zool. 33: 64, 66. ♀ ♂.

**Genus ACROTOMUS Holmgren, p. 228**

Taxonomy: Mason, 1956. Canad. Jour. Zool. 34: 120.

*ornatus* (Walsh). Remove *Tryphon rufigaster* Provancher from syn. and transf. to *Ipoctoninus* Hincks, p. 338.

**Genus DIABORUS Foerster, p. 228**

Delete from Catalog; No. Amer. species belong in *Eudiaborus* Kerrich, 1952, *q.v.* (*teste* Mason, 1955. Canad. Jour. Zool. 33: 21).

## \*Genus EUDIABORUS Kerrich

*Diaborus* of authors, not of genotype.

*Eudiaborus* Kerrich, 1952. Brit. Mus. (Nat. Hist.) Ent. Bul. 2: 315, 415.

Type: *Diaborus pallitarsis* Thomson. Orig. desig.

Taxonomy: Mason, 1955. Canad. Jour. Zool. 33: 18-73, figs.

Place in tribe Exenterini after genus *Acerotomus* Holmgren, p. 228.

\**devius* Mason. Alaska, Man., Colo.; Sweden, Russia.

*Eudiaborus devius* Mason, 1955. Canad. Jour. Zool. 33: 24, 34. ♀.

*dorsalis* (Cresson). Transf. from *Diaborus* Foerster, p. 228, with its synonym, *mediatus* (teste Mason, 1955, Canad. Jour. Zool. 33: 24).

\**eximius* Mason. N. Y. (Farmingdale).

*Eudiaborus eximius* Mason, 1955. Canad. Jour. Zool. 33: 24, 33. ♀.

\**flavicircus* Mason. Ohio, Ind., Ont., S. C. Host: *Pristiphora* sp. on red oak.

*Eudiaborus flavicircus* Mason, 1955. Canad. Jour. Zool. 33: 24, 25, 27.  
♀ ♂.

*glutiniatus* (Roman). Europe; Siberia; Alaska, Yukon, B. C., Maine. Transf. from *Diaborus* Foerster (teste Mason, 1955, Canad. Jour. Zool. 33: 24).

\**leptonyx* Mason. N. W. T., Alaska, Yukon, Alta., Man., Newfoundland., Wash., Colo., Calif., Ariz.

*Eudiaborus leptonyx* Mason, 1955. Canad. Jour. Zool. 33: 24, 25, 37.  
♀ ♂.

\**luminosus* Mason. N. Y. (Ithaca).

*Eudiaborus luminosus* Mason, 1955. Canad. Jour. Zool. 33: 24, 40. ♀.

*maculiventris maculiventris* (Ashmead), change status. B. C. to Newfoundland, Maine to Mass., also Colo. Transf. from *Diaborus* Foerster with *D. ignipes* Davis as synonym. (teste Mason, 1955, Canad. Jour. Zool. 33: 52).

*maculiventris sexmaculatus* (Ashmead), changed status. Alaska, N. W. T., Man. Transf. from *Diaborus* Foerster. (teste Mason, 1955, Canad. Jour. Zool. 33: 54). Syn. of *maculiventris* in Catalog.

*nigrocephalus* (Davis). Transf. from *Diaborus* Foerster (teste Mason, 1955, Canad. Jour. Zool. 33: 24).

\**promediatus arizonicus* Mason. Ariz., N. Mex.

*Eudiaborus promediatus arizonicus* Mason, 1955. Canad. Jour. Zool. 33: 60. ♀.

\**promediatus cressoni* Mason. Ont. to Va., west to Mich. Host: *Nematus odoratus* (Marl.).

*Eudiaborus promediatus cressoni* Mason, 1955. Canad. Jour. Zool. 33: 59. ♀ ♂.

\**promediatus promediatus* Mason. Transcont. in Huds., Canad. and Transit. Zones. Hosts: *Nematus curranii* Ross, *Hemichroa crocea* (Fourc.).

*Eudiaborus promediatus promediatus* Mason, 1955. Canad. Jour. Zool. 33: 56. ♀ ♂.

\**pulchellus* Mason. Ont., Que., Oreg.

*Eudiaborus pulchellus* Mason, 1955. Canad. Jour. Zool. 33: 24, 25, 50.  
♀ ♂.

\**pyelechus* Mason. Md., Pa., N. J., Mass., Mich.

*Eudiaborus pyelechus* Mason, 1955. Canad. Jour. Zool. 33: 24, 25. ♀ ♂.

\**scaphuloides* Mason. N. H., Ont., Que., Maine, R. I., Md., Mich., Idaho.

*Eudiaborus scaphuloides* Mason, 1955. Canad. Jour. Zool. 33: 24, 25, 40. ♀ ♂.

*similis citrifrons* (Ashmead), changed status. Alaska, Yukon, B. C., Wash. Transf. from *Diaborus* Foerster (teste Mason, 1955, Canad. Jour. Zool. 33: 48). Syn. of *similis* in Catalog.



- \***similis hilaretinctus** Mason. Sask., Alta., N. W. T., Ont., Que., N. Dak., N. H., Maine.  
*Eudiaborus similis hilaretinctus* Mason, 1955. Canad. Jour. Zool. 33: 45.  
 ♀ ♂.
- similis nebraskensis** (Davis), changed status. Nebr. Transf. from *Diaborus* Foerster (*teste* Mason, 1955, Canad. Jour. Zool. 33: 49). Syn. of *similis* in Catalog.
- similis similis** (Davis), changed status. B. C., Alta. south to Colo. and Calif. Transf. from *Diaborus* Foerster (*teste* Mason, 1955, Canad. Jour. Zool. 33: 43).
- vitticollis** (Cresson). N. B., N. H., Conn. Host: *Pristiphora bivittata* (Nort.). Transf. from *Diaborus* Foerster (*teste* Mason, 1955, Canad. Jour. Zool. 33: 24).

#### Genus **EXENTERUS** Hartig, pp. 228-230

- canadensis** Provancher. Host: *Neodiprion taedae linearis* Ross.

#### Genus **SMICROPLECTRUS** Thomson, p. 230

- Taxonomy: Mason, 1956. Canad. Jour. Zool. 34: 124-151 (key).
- albilineatus** (Walsh). A subsp. of *jucundus* Holmgren.
- annulipes** (Cresson). Host: *Croesus latitarsus* Nort.
- apicatus** (Provancher). Maine.
- californicus** (Cresson). Canad. Zone.
- \***eburneus** Mason. Ont., Tex.  
*Smicroplectrus eburneus* Mason, 1956. Canad. Jour. Zool. 34: 126, 141. ♀.
- \***etrocaulus etrocaulus** Mason. Alta., B. C., Oreg., Colo.  
*Smicroplectrus etrocaulus etrocaulus* Mason, 1956. Canad. Jour. Zool. 34: 126, 148, 149. ♀ ♂.
- \***etrocaulus eurus** Mason. N. B., Que., Mass., Mich., Minn.  
*Smicroplectrus etrocaulus eurus* Mason, 1956. Canad. Jour. Zool. 34: 150. ♀.
- jucundus albilineatus** (Walsh), changed status.  
*Smicroplectrus albilineatus* (Walsh). Reduced to subsp. rank (*teste* Mason 1956. Canad. Jour. Zool. 34: 150).
- \***takomae** Mason. Wash., N. W. T., Alaska.  
*Smicroplectrus takomae* Mason, 1956. Canad. Jour. Zool. 34: 127, 131.  
 ♀ ♂.
- velox** Walley. Host: *Pristiphora erichsonii* (Htg.)
- \***walleyi** Mason. Ont., Que., N. Y., Pa., Ohio, Nebr., Md., Va., Ky.  
*Smicroplectrus walleyi* Mason, 1956. Canad. Jour. Zool. 34: 126, 142.  
 ♀ ♂.

### Subfamily **CRYPTINAE**

(= *Gelinae* of Catalog)

#### Tribe **BRACHYCYRTINI**

Taxonomy: Walkley, 1956. U. S. Natl. Mus. Proc. 106: 315-329, figs.  
 Transf. from p. 203.

#### Genus **BRACHYCYRTUS** Kriechbaumer

- Brachycyrtomorpha** Kreibohm de la Vega, 1940. Change v. 3 to 30.  
*Nom. nud.* (See Art. 25, as amended, of International Rules).  
 Delete type designation.

\**Brachycyrtomorpha* Blanchard, 1942. Soc. Cient. Argentina An. 134: 105.

Type: *Brachycyrtomorpha crossi* Blanchard. By monotypy and orig. desig.

*chrysopae* Walley. Syn. of *ornatus* Kriechbaumer.

\**ornatus* Kriechbaumer. Europe; B. C., Ariz., Ohio, Md. Host: Chrysopidae.

*Brachycyrtus ornatus* Kriechbaumer, 1880. Zool. Mineral Ver. Regensburg Corres. 34: 163. ♀.

*Brachycyrtus chrysopae* Walley, 1940. Canad. Ent. 72: 86. ♀.

*pretiosus* Cushman. Fla. (Hillsboro Co., Tampa, Haines City). Host: "Trashbug pupae" (chrysopid pupae).

### Tribe HEMITELINI

(= *Gelini* of Catalog)

#### Genus AMYDRAULAX Cushman, pp. 232-233

\**brevicinctus* (Provancher).

*Cryptus brevicornis* Provancher, 1886. Preocc.

*Cryptus brevicinctus* Provancher, 1886. Addit. Corr. Faune Ent. Canada, Hym., p. 452 (*Lapsus* in Index for *brevicornis*).

*Amydraulax echthroides* Townes, 1944. N. name for *brevicornis*.

*echthroides* Townes. Syn. of *brevicinctus* Provancher, *q.v.*

#### Genus MASTRUS Foerster, pp. 233-234

*smithii* Packard. After *Echthrus rubripes* Provancher (misspelled *rubipes* in Catalog), change p. 15 to p. 16.

#### Genus ETHELURGUS Foerster, p. 235

*belfragei* (Ashmead). Misspelled *belfragi* in Catalog; change p. 899 to 399.

#### Genus STIBOSCOPUS Foerster, p. 235

*brooksi* Brooks. Not congeneric with *S. thoracicus* Ashmead, genotype of *Stiboscopus* Foerster. Place at end of Cryptinae, p. 276 of catalog under new heading: Unplaced Species of Hemitelini.

#### Genus IDEMUM Foerster, p. 236

*crassiformis* (Viereck). Add page 339 to orig. cit.

#### Genus HAPLASPIS Townes, p. 238

*mandibularis* (Provancher). Hosts: *Apanteles congregatus* (Say), *A. scitulus* Riley, *A. militaris* (Walsh).

#### Genus ANUROTROPUS Cushman, p. 238

Misspelled *Anuroptropus* in Catalog.

#### Genus GELIS Thunberg, pp. 238-243

*davidsonii* (Ashmead).

*Hemiteles (Ilapinastes) davidsonii* Ashmead, in Davidson, 1896. Add p. 319.

#### Genus HEMITELES Gravenhorst, p. 244

*mellicornis* Ashmead. Md. Host: *Micromus posticus* (Wlkr.).

#### ENDASYS subgenus ENDASYS Foerster, pp. 245-246

*mucronatus* (Provancher).

\**Melophron abdominalis* Ashmead MS, in Slosson, 1906. Ent. News 17: 324. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 18.

*subclavatus* (Say). Host: *Neodiprion taedae linearis* Ross.

\**Medophron* (!) *monticola* Ashmead MS, in Slosson, 1900. Ent. News 11: 319. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 18.

\**Platylabus ruficornis* Provancher, 1886. Addit. Corr. Faune Ent. Canada Hym., pp. 36, 38. ♂ ♀.

#### Genus PHYGADEUON Gravenhorst, pp. 247-250

*aciculatus* Provancher. Change Nat. Canad. 12 to Nat. Canad. 13.

*cincticornis* (Provancher). Preocc. in *Phygadeuon* by Cresson, 1864.  
Replaced by *provancheri*, *q. v.*

*exiguus* (Cresson). Preocc. in *Phygadeuon* by Gravenhorst, 1829. Replaced by *pisinnus* n. name, *q. v.*

*niger* (Ashmead). Preocc. in *Phygadeuon* by Provancher, 1874 and 1876.  
Replaced by former synonym, *quadriceps* Ashmead, *q. v.*

\**pisinnus* Walkley, n. name.

*Ichneumon exiguus* Cresson, 1864. Preocc.

\**provancheri* Walkley, n. name.

*Platylabus cincticornis* Provancher. Preocc.

*quadriceps* (Ashmead). Valid name.

*Bachia nigra* Ashmead, 1899 (*niger* in Catalog). Preocc.

#### Genus ATRACTODES Gravenhorst, pp. 251-253

*ashmeadi* Cushman.

\**Asyncrita compressa* Ashmead MS, in Slosson, 1897. Ent. News 8: 237.  
Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 6.

\**ebeninus* Walkley, n. name.

*Exolytus niger* Ashmead, 1899. Preocc.

*niger* (Ashmead). Preocc. in *Atractodes* by Brullé, 1846. Replaced by *ebeninus*, n. name, *q. v.*

### Tribe APTESINI

#### Genus CUBOCEPHALUS Ratzeburg, pp. 253-255

*Microcryptus* Thompson. Change author to Thomson.

*Cratocryptus* Thompson. Change author to Thomson.

*Stenocryptus* Thompson. Change author to Thomson.

\**armillatus* Walkley, n. name.

*Cryptus collaris* Provancher, 1886. Preocc.

*collaris* (Provancher). Preocc. in *Cryptus* by Rudow, 1883. Replaced by *armillatus* n. name, *q. v.*

*erythropus velox* (Cresson).

\**Isotina tibialis* Ashmead MS, in Slosson, 1897. Ent. News 8: 237.  
Validated in syn. by Cushman, 1922. U. S. Natl. Mus. Proc. 61 (art. 8): 9.

*schmuckii* (Dalla Torre).

*Cryptus longicaudus* Provancher, 1886. Misspelled *longicaudis* in Catalog.

#### Genus MEGAPLECTES Foerster, pp. 255-256

*Iocryptus* Thompson. Change author to Thomson.

#### Genus OPIDNUS Foerster, p. 256

*trifasciatus* (Ashmead). Change from *trifasciata*.

## Tribe SPHECOPHAGINI

## Genus SPHECOPHAGA Westwood, p. 258

*Cacotropa* Foerster. After "Type," change *Catotropa* to *Cacotropa*.

## Tribe CRYPTINI

(= *Mesostenini* of Catalog)

## Genus CHRISTOLIA Brullé, pp. 258-259

*texana* (Ashmead). Ind.

## Genus CRYPTUS Fabricius

(= *Trachysphyrus* Haliday of Catalog, pp. 259-263)

*Cryptus* Fabricius, 1804. Replace "Preocc." with: Placed on Official List of Generic Names in Zoology (Op. 157, 1945). Delete parentheses around author name of each valid specific entry except *iroquois* (Viereck), and also "n. comb." following each entry.

\**eleucopus* Walkley, n. name.

*Cryptus leucopus* Ashmead, 1890. Preocc.

*leucopus* Ashmead. Preocc. in *Cryptus* by Gmelin, 1790. Replaced by *eleucopus* n. name, q. v.

*rufovinctus* Pratt. Host: *Trichoplusia ni* (Hbn.)

## Genus COMPSOCRYPTUS Ashmead, pp. 263-264

*fasciipennis* (Brullé). Fla. (Key Largo, Key West, Florida City).

## Genus MESOSTENUS Gravenhorst, pp. 264-265

*gracilis* Cresson. Host: *Myelois venipars* Dyar.

*thoracicus* Cresson. Host: *Acrobasis betulella* Hulst, *Dioryctria disclusa* Heinr.

## POLYCYRTUS subgenus POLYCYRTUS Spinola, p. 265

*neglectus* Cushman. Wis.

## Genus IDIOLISPA Foerster, p. 266

*limata* (Cresson). Host: egg sac of *Lycosa gulosa* Walck.

## Genus HOPLOCRYPTUS Thomson, p. 268-269

*gracilis* (Provancher). Change *Agrothereutes* (*Habrocryptus*) *graenicheri* Viereck to *Habrocryptus graenicheri* Viereck.

## Genus AGROTHEREUTES Foerster, pp. 269-270

*cimbicivorus* (Cushman), emend.

*Spilocryptus* (!) *cimbicivorus* (!) Cushman, 1924 (wrongly 1925 in Catalog).

## Genus ISCHNUS Gravenhorst, pp. 270-271

*fraterculus fraterculus* (Provancher).

*Phygadeuon fraterculus* Provancher, 1886. *P. 3-annulatus* Provancher, preocc., q. v.

\**fraterculus tricircularis* Walkley, n. name.

*Phygadeuon 3-annulatus* Provancher, 1882. Preocc.

*inquisitorius atriceps* (Cresson). Host: *Choristoneura fumiferana* (Clem.).

*inquisitorius atricollaris* (Walsh). Change *Ischus exilis* Provancher to *Ischnus exilis*.

*oregonensis* Cushman. Transf. to *Pseudischnus* Walkley, q. v.



*3-annulatus fraterculus* (Provancher). Replaced by *fraterculus fraterculus*, *q. v.*

*3-annulatus 3-annulatus* (Provancher). Preocc. in *Phygadeuon* by Gravenhorst, 1829. Replaced by *tricircularis* n. name, *q. v.*

**\*Genus PSEUDISCHNUS Walkley**

*Pseudischnus* Walkley, 1954. Wash. Acad. Sci. Jour. 44: 219.

Type: *Ischnus oregonensis* Cushman. By monotypy and orig. desig.

Place in Cryptini before *Chromocryptus* Ashmead, p. 271.

*oregonensis* (Cushman). Calif. Transf. from *Ischnus* Gravenhorst, p. 270.

**Genus POLISTIPHAGA Cushman, p. 272**

Under type designation change "orig. desig." to By monotypy and orig. desig.

**Genus LYMEON Foerster, pp. 272-273**

Under type designation, change "Monob." to: Included by Ashmead, 1894. *orbum* (Say). Host: *Eurycyttarus confederata* (G. & R.)

**Genus POLYCYRTIDEA Viereck, p. 273**

*flavopicta* (Ashmead). Host: *Rupela albinella* (Cram.) (in British Guiana).

**Genus XYLOPHRURUS Foerster, pp. 273-274**

*Nyxeophilus* Foerster. Change author of genotype *N. bimaculatus* to Thomson.

**Genus HELCOSTIZUS Foerster, p. 275**

*Mesocryptus* Thompson. Change author to Thomson.

**Genus ACRORICNUS Ratzeburg, pp. 275-276**

Revision: Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 249-261.

*aequatus aequatus* (Say). A subsp. of *stylator* Thunberg.

*aequatus junceus* (Cresson). A subsp. of *stylator* Thunberg.

*edwardsii* (Cresson). A subsp. of *stylator* Thunberg.

*excelsus* (Cresson). A subsp. of *stylator* Thunberg.

*stylator aequatus* (Say). N. S., P. E. I., south to N. Y., west to Minn. and Alta. Host: *Eumenes fraternus* Say.

*Acroricnus aequatus aequatus* (Say). A subsp. of *stylator* (teste Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 258).

\**stylator axilaris* Mitchell. So. Dak. (Harney Peak).

*Acroricnus stylator axilaris* Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 259. ♀.

*stylator edwardsii* (Cresson), changed status. Oreg., Calif.

*Acroricnus edwardsii* (Cresson). Reduced to subsp. rank (teste Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 259).

*stylator excelsus* (Cresson), changed status. Colo., B. C.

*Acroricnus excelsus* (Cresson). Reduced to subsp. rank (teste Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 255).

*stylator junceus* (Cresson). Que. to N. C., west to Ont., Minn., Mo. Hosts: *Ancistrocerus birenimaculatus* (Sauss.), *A. tigris* (Sauss.), *Sceliphron caementarium* (Dru.)

*Acroricnus aequatus junceus* (Cresson). A subsp. of *stylator* (teste Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 257).

\**stylator niger* Mitchell. Alaska, B. C., Alta., Wash., Oreg., Idaho, Mont., Utah, Colo.

*Acroricnus stylator niger* Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 253. ♀ ♂.

\**stylator stylator* (Thunberg). Europe; Asia; Alaska; B. C., "Can." Host: *Sceliphron caementarium* (Dru.)

*Ichneumon stylator* Thunberg, 1822. Acad. Imp. Sci. St. Petersburg, Mém. 8: 265.

*Cryptus macrobatus* Gravenhorst, 1829. Ichn. Europaea, v. 2, p. 440. ♂ ♀.

*Acroricnus Schaumii* Ratzeburg, 1853. Ichn. Forstins., v. 3, p. 92. ♂.

\**stylator townesi* Mitchell. Ariz.

*Acroricnus stylator townesi* Mitchell, 1950. Ent. Soc. Amer. Ann. 43: 251, 256. ♀ ♂.

#### Genus MESSATOPORUS Cushman, p. 276

*ferrum-equinum* (Walsh and Riley).

\**Mesostenus jocosus* Provancher, 1874. Nat. Canad. 6: 300. ♀. N. syn.

Unplaced Species of Hemiteliini

*Stiboscopus brooksi* Brooks. Transf. from p. 235, q.v.

#### Tribe PHAEOGENINI

(= *Alomyini* of Catalog)

#### Genus PHAEOGENES Wesmael, pp. 276-278

*hariolus* (Cresson). Host: *Argyrotaenia dorsalana* (Dyar).

*hebrus* (Cresson). Host: *Pyrausta pertextalis* Led.

*mellinus* (Provancher). Host: *Argyrotoxa semipurpurana* Kearf.

\**nigridens* Wesmael. Introduced from Europe. Mass. Host: *Pyrausta nubilalis* (Hbn.).

*Phaogenes nigridens* Wesmael, 1844. Nouv. Mem. Acad. Sci. Bruxelles 18: 192. ♀ ? ♂.

Taxonomy and Biology: Smith, 1932. U. S. Dept. Agr. Tech. Bul. 331: 1-46.—Baker, 1944. Ent. Soc. Wash. Proc. 46: 134.—Arbuthnot, 1950. Jour. Econ. Ent. 43: 425.

#### Tribe PLATYLABINI

(= *Pristiceratini* of Catalog)

#### Genus PLATYLABUS Wesmael, pp. 280-281

\**perkinsi* Walkley, n. name.

*Ichneumon vafer* Cresson, 1877. Preocc.

*vafer* (Cresson). Preocc. in *Ichneumon* by Gmelin, 1790. Replaced by *perkinsi* n. name, q. v.

#### Tribe ISCHNOJOPPINI

#### Genus TROGOMORPHA Ashmead, p. 282

*trogiformis* (Cresson). Host: *Ephyriades brunnea floridensis* Bell & Comst.

#### Tribe ICHNEUMONINI

(= *Amblytelini* of Catalog)

#### Genus HOPLISMENUS Gravenhorst, p. 283

*morulus morulus* (Say). Host: *Polygonia comma* (Harr.)

#### \*Genus CARINODES Hancock

*Carinodes* Hancock, 1926. Entomologist 59 (758): 189.

Type: *Carinodes spinosus* Hancock. By monotypy and orig. desig.

\**Ditremops* Townes, 1946. Bol. de Ent. Venezolana 5: 31, 52. N. syn. (teste H. K. Townes, in conversation).

Type: *Ichneumon abjectus* Cresson. By orig. desig.

Place in Ichneumonini after Genus *Narthecura* on p. 284.

\**havanensis* (Cameron). Cuba; Fla. (Belle Glade).

*Ichneumon* (?) *Havanensis* Cameron, 1906. Ann. Estac. Agron. Cuba, p. 277. ♂.

#### Genus **MELANICHNEUMON** Thomson, pp. 284-287

*Barichneumon* Thomson. Delete from syn. A valid genus.

*brevicinctor* (Say). Host: *Plathypena scabra* (F.).

*helvipes* (Cresson).

\**Phygadeuon ater* Provancher, 1883. Faune Ent. Canada, Hym., p. 275. (*Lapsus* for *niger*).

*mucronatus* (Provancher). Valid name.

*Ichneumon rubicundus* Cresson, 1864. Preocc.

*rubicundus* (Cresson). Preocc. in *Ichneumon* by Fourcroy, 1785. Replaced by former synonym, *mucronatus* Provancher, q. v.

*saundersi* (Cresson). Spelled *saundersii* on p. 177; add p. 141 to orig. cit.

#### Genus **BARICHNEUMON** Thomson

(= *Melanichneumon* of Catalog, in part, pp. 284-287)

Change author of genotype to Fabricius. Place in Ichneumonini after *Melanichneumon* on p. 287. There are synonyms and species listed in Catalog under *Melanichneumon* which have not been transferred to this genus since extensive revisionary work is not within the scope of a synoptic Catalog.

\**anator* (Fabricius). Europe; Maine (Dryden).

*Ichneumon anator* Fabricius, 1793. Ent. System., v. 2, p. 169. (Teste Heinrich, 1953, Wash. Acad. Sci. Jour. 43: 148. ♀ ♂.)

#### Genus **CRATICHNEUMON** Thomson, pp. 287-290

*acerbus* (Cresson). A subspecies of *nigritarius* (Fabricius).

*confusus* Ashmead. Alaska, B. C., Que., N. Y.

*duplicatus* (Say). Mass.

*lariae* (Curtis). Transf. to *Ichneumon* (= *Pterocormus* of Catalog) p. 299, as *lariae lariae* Curtis.

*nigritarius acerbus* (Cresson), changed status.

*Cratichneumon acerbus* (Cresson). Reduced to subsp. rank (teste G. Heinrich, 1953, Wash. Acad. Sci. Jour. 43: 149).

*w-album* (Cresson). Host: *Apantesis phalerata* (Harr.).

#### Genus **AOPLUS** Tischbein, p. 290-291

*Stenichneumon* Thomson. Delete from syn. A valid genus, q. v.

*cincticornis* (Cresson). Transf. with its syn. to *Stenichneumon* Thomson as subsp. of *culpator* Schrank.

*militarius* (Thunberg). Transf. to *Stenichneumon* Thomson.

*salvus bioculatus* (Cresson). Transf. to *Stenichneumon* Thomson.

*salvus pallidipennis* (Viereck). Transf. to *Stenichneumon* Thomson.

*salvus salvus* (Cresson). Transf. with its syn. to *Stenichneumon* Thomson.

#### Genus **STENICHNEUMON** Thomson

(= *Aoplus* of Catalog, in part, p. 290)

Place in Ichneumonini after *Aoplus* on p. 291.



- culpator cincticornis** (Cresson), changed status. Transf. from **Aoplus** Tischbein, p. 290, (*teste* Heinrich, 1953. Wash. Acad. Sci. Jour. 4: 149).
- militarius** (Thunberg). Host: *Plusia* sp. Transf. from **Aoplus** Tischbein, p. 290 (*teste* Heinrich, 1953, Wash. Acad. Sci. Jour. 43: 148).
- salvus bioculatus** (Cresson), n. comb. Transf. from **Aoplus** Tischbein, p. 290.
- salvus pallidipennis** (Viereck), n. comb. Transf. from **Aoplus** Tischbein, p. 290.
- salvus salvus** (Cresson), n. comb. Transf. from **Aoplus** Tischbein, p. 290.

#### Genus PATROCLUS Cresson, p. 291

\***walleyi** Heinrich. Ont., N. W. T.

*Patroclus walleyi* Heinrich, 1956. Canad. Ent. 88(8): 486. ♀ ♂.

#### \*Genus EUTANYACRA Cameron

*Eutanyacra* Cameron, 1903. Ent. Soc. London Trans., p. 227.

Type: *Eutanyacra pallidicoxis* Cameron, by monotypy.

Place in Ichneumonini after *Chasmias* Ashmead, p. 292.

\***chillcotti** Heinrich.

*Eutanyacra chillcotti* Heinrich, 1956. Canad. Ent. 88(8): 478. ♀ ♂.

**improvisus** (Cresson). Transf. with its syn. from **Amblyteles**, p. 294 (*teste* Heinrich, 1956, Canad. Ent. 88(8): 478).

**succinctus** (Brullé). Transf. with its syn. from **Pseudamblyteles**, p. 294 (*teste* Heinrich, 1956. Canad. Ent. 88(8): 478).

#### Genus PSEUDAMBLYTELES Ashmead, pp. 292-294

**apicalis** (Cresson). Preocc. in *Ichneumon* by Wiedeman, 1824. Replaced by **apiculatus** n. name, *q. v.*

\***apiculatus** Walkley, n. name.

*Ichneumon apicalis* Cresson, 1864. Preocc.

**grotei** (Cress.). Iowa.

**succinctus** (Brullé). Transf. with its syn. to *Eutanyacra* Cameron, *q. v.*

#### \*Genus LIMERODOPS Heinrich

*Limerodops* Heinrich, 1949. Münch. Ent. Gesell. Mitt. 35-39: 44.

Type: (*Amblyteles elongatus* Brischke) = *Amblyteles fossorius* (Linnaeus). Orig. desig.

Place in Ichneumonini on p. 294, after *Pseudamblyteles* Ashmead.

\***fossorius belangeri** (Cresson), changed status. Maine. Transf. from *Amblyteles*, p. 294 (*teste* Heinrich, 1953, Wash. Acad. Sci. Jour. 43: 150).

#### Genus AMBLYTELES Wesmael, pp. 294-295

**belangeri** Cresson. Transf. to *Limerodops* Heinrich as subsp. of **fossorius** (Linnaeus).

**improvisus** (Cresson). Transf. with its syn. to *Eutanyacra* Cameron, *q. v.*

**ormenus** (Cresson). Alaska.

**rufizonatus** (Cresson).

*Ichneumon Marianopolitanensis* Provancher, 1875, etc. Change to *Ichneumon Marianopolitanensis* (spelled *Marianopolitanus* in key) Provancher, 1875. Nat. Canad. 7: 24, 81. ♀.

#### Genus SPILICHNEUMON Thomson, p. 295

**pomilius** (Provancher). Change from *pomilus*. Change also in bibliographic reference.



Genus **TRICHOLABUS** Thomson, p. 296

**citatus** (Provancher). Alaska.

Genus **ICHNEUMON** Linnaeus

(= **Pterocormus** Foerster of Catalog, pp. 296-301)

Replace first line of generic synonymy with:

**Ichneumon** Linnaeus, 1758. Syst. Nat., ed. 10, pp. 343, 560.

Type: **Ichneumon extensorius** Linnaeus. Desig. by Int. Com. Zool. Nomencl. Op. 159, 1945.

Delete parentheses from author name of each species included, except the 14 species not originally described in **Ichneumon**.

**alpestriformis** Viereck. Alaska: St. George Is., St. Matthew Is.

\***amauropus** Heinrich. N. W. T. (Ellesmere Is.)

**Ichneumon amauropus** Heinrich, 1956. Canad. Ent. 88(8): 481. ♀.

\***ambulatorius** Fabricius.

**Ichneumon ambulatorius** Fabricius, 1775. Syst. Ent., p. 329. ♀.

**Ichneumon jucundus** Brullé (Syn. by Perkins, 1952, Ent. 85: 66, 67).

Taxonomy: Heinrich, 1953. Wash. Acad. Sci. Jour. 43: 149.

**artemis** (Viereck). Alta., Man., Newfoundland, Labrador.

Taxonomy: Heinrich, 1956. Canad. Ent. 88(8): 486.

**atrox** Cresson. Alaska.

**aurivillii** (Roman). Place as syn. of **Ichneumon lariae lariae** Curtis (*teste* Heinrich, 1956. Canad. Nat. 88(12): 686).

**bimembris** Provancher. A subsp. of **languidus** Wesmael.

**bipunctatus** Cresson. Preocc. in **Ichneumon** by Gmelin, 1790. Replaced by former synonym, **festus** Cresson, *q. v.*

\***byrdiae** Heinrich. N. W. T., Yukon. Host: *Byrdia rossi* Curt.

**Ichneumon byrdiae** Heinrich, 1956. Canad. Ent. 88(8): 479. ♀ ♂.

\***byrdiops** Heinrich. Alaska (Seward).

**Ichneumon byrdiops** Heinrich, 1956. Canad. Ent. 88(8): 480. ♀.

**caliginosus** Cresson. Alaska.

\***cessatorops** Heinrich. Yukon.

**Ichneumon cessatorops** Heinrich, 1956. Canad. Ent. 88(8): 482, 484. ♀.

\***cessatorops kazubazuae** Heinrich. Que. (Kazubazua).

**Ichneumon cessatorops Kazubazuae** Heinrich, 1956. Canad. Ent. 88(8): 482, 485. ♀.

**cinctitarsis** Provancher. A subsp. of **deliratorius** Linnaeus.

**deliratorius cinctitarsis** Provancher, changed status.

**Pterocormus cinctitarsis** (Provancher). Reduced to subsp. rank (*teste* Heinrich, 1953, Jour. Wash. Acad. Sci. 43: 149).

**festus** Cresson. Valid name.

**Ichneumon bipunctatus** Cresson, 1865. Preocc.

\***gaviscolor** Heinrich. Que. (Ft. Chimo).

**Ichneumon gaviscolor** Heinrich, 1956. Canad. Ent. 88(8): 482, 485. ♀.

**inurbanus** Cresson. N. Y.

**jucundus** Brullé. Syn. of **ambulatorius** Fabricius.

**languidus bimembris** Provancher, changed status. Maine.

**Pterocormus bimembris** (Provancher). Reduced to subsp. rank (*teste* Heinrich, 1953, Jour. Wash. Acad. Sci. 43: 149).

\***lariae labradoris** Heinrich. Hopedale, Newfoundland.

**Ichneumon lariae labradoris** Heinrich, 1956. Canad. Ent. 88(12): 690. ♀.

*lariae* *lariae* Curtis. Changed status. Baffin Is., Southampton Is. Transf. from *Cratichneumon*, p. 288 (*teste* Heinrich, 1956. Canad. Ent. 88(12): 686).

*Ichneumon aurivillii* Roman (Syn. by Heinrich, *ibid*).

\**lariae subarcticus* Heinrich. N. W. T., Man., Que.

*Ichneumon laeiae subarcticus* Heinrich, 1956. Canad. Ent. 88(12): 687, 689. ♀.

\**masoni* Heinrich. Alaska.

*Ichneumon masoni* Heinrich, 1956. Canad. Ent. 88(8): 479. ♀.

\**nebularum* Heinrich. Labrador (Hopedale).

*Ichneumon nebularum* Heinrich, 1956. Canad. Ent. 88(8): 482, 483. ♀.

*neutalis* Cresson. Ariz. Host: *Estigmene acraea* (Dru.)

*nigratorius* Fabricius. Preocc. in *Ichneumon* by Müller, 1776. Replaced by *nigriculus* n. name, q. v.

\**nigriculus* Walkley, n. name.

*Ichneumon nigratorius* Fabricius, 1804. Preocc.

*pedalis* Cresson. Alaska.

\**perretti* Heinrich. Labrador (Hopedale).

*Ichneumon perretti* Heinrich, 1956. Canad. Ent. 88(8): 482. ♀.

\**trigemellus* Heinrich. N. W. T., Man.

*Ichneumon trigemellus* Heinrich, 1956. Canad. Ent. 88(8): 482, 484. ♀.

*uncinatus* Cresson. Alaska.

### Tribe PROTICHNEUMONINI

(= *Ichneumonini* of Catalog)

#### Genus COELICHNEUMON Thomson

(= *Ichneumon* Linnaeus of Catalog, pp. 301-303)

Delete first two lines of generic synonymy. Change author of *Coelichneumon* in line 3 to Thomson.

Place author name of each included valid species in parentheses except: *barnstoni* Morley; *solutus occidentalis* Roman.

*barnstoni* Morley. Delete "n. comb."

*caeruleus* Cresson. Syn. of *eximius* (Stephens).

\**calculatorius* (Thunberg). Europe; Maine. Host: *Olene* sp.

*Ichneumon calculatorius* Thunberg, 1822. Acad. Imp. Sci. St. Petersburg, Mém. 8: 254.

\**eximius* (Stephens).

*Ichneumon eximius* Stephens, 1835. Illus. Brit. Ent. Mandibulata, v. 7, p. 186.

*Ichneumon caeruleus* Cresson (syn. by Perkins, 1953, Brit. Mus. (Nat. Hist.) Ent. Bul. 3: 107, 110).

*maurus* (Brullé). Tenn.

*navus* (Say). Host: *Hyphantria cunea* (Dru.) (reared by R. Mitchell).

*orpheus* (Cresson). Host: *Ecpantheria deflorata* (F.)

\**pumilionobilis* Heinrich. Europe; Maine.

*Coelichneumon pumilionobilis* Heinrich, 1951. Bonner Zool. Beitr. 2: 251. ♀ ♂.

*Coelichneumon pumilosimilis* [lapsus] Heinrich, 1953. Wash. Acad. Sci. Jour. 43: 148. ♀ ♂.

*solutus occidentalis* Roman. Delete "n. comb."

\**tauma* Heinrich. Europe; Maine. Host: Geometridae.

*Coelichneumon tauma* Heinrich, 1951. Bonner Zool. Beitr. 2: 253. ♀.

### Tribe TROGINI

#### Genus TROGUS Panzer, p. 306

*flavipennis* Cresson. Host: *Papilio* sp.

#### Subfamily LISSONOTINAE

(= *Banchinae* of Catalog)

#### Genus GLYPTA Gravenhorst, p. 306

*borealis* Cresson. Que.

*erratica* Cresson. Host: *Pyrausta pertextalis* Led.

*evetriae* Cushman. Calif.

*fumiferanae* (Viereck). Maine, Mich., Minn., Mont., Oreg. Hosts:  
*Choristoneura pinus* Free., *Acleris variana* (Fern.)

*mutica* Cushman. Maine. Host: *Archips persicana* (Fitch).

*simplicipes* Cresson. Host: *Tortrix pallorana* Rob.

### Tribe LYCORININI

Spelled *Lycorini* in Catalog. Transf. with its component genus and species to Pimplinae after genus *Arotes* Gravenhorst, p. 209.

### Tribe LISSONOTINI

#### Genus ARENETRA Holmgren, p. 310

*canadensis* Cresson. Host: *Actebia fennica* Tausch.

#### Genus LAMPRONOTA Curtis, p. 311

Under type designation, change "Monob." to: "Orig. desig."

#### LISSONOTA subgenus LISSONOTA Gravenhorst, pp. 311-312

*rufipes* Cresson. Preocc. in *Lissonota* by Brischke, 1864. Replaced by former synonym, *tegularis* (Cresson), q. v.

*tegularis* (Cresson). Valid name.

*Lissonota rufipes* Cresson, 1868. Preocc.

\**Arenetra Quebecensis* Provancher, 1875. Nat. Canad. 7: 141. ♂.

#### LISSONOTA subgenus ANARTHRONOTA Schmiedeknecht, p. 312

*brunnea* (Cresson). Delete parentheses and "n. comb."

#### Genus PIMPLOPTERUS Ashmead, pp. 312-314

*punctulatus* (Cresson). Add. p. 160 to orig. cit. of *punctulata*.

#### Genus TREVORIA Ashmead, p. 314

*yakutatensis* Ashmead, emend. of *yukatensis* Ashmead.

#### Genus SYZEUCTUS Foerster, p. 315

*elegans* (Cresson). Hosts: *Tetralopha robustella* Zell., *T. asperatella* Clem.

### Tribe BANCHINI

#### Genus EXETASTES Gravenhorst, pp. 316-319

*obscurus* Cresson. N. C.

*ruficoxalis* Cushman. Alaska.

**Genus BANCHUS Fabricius, pp. 320-321**

*monileatus alticola* (Ashmead). Spelled *alticolus* in Catalog.

*pallescens* Provancher.

\**Corynephanes tarsalis* Ashmead MS, in Slosson, 1902. Ent. News 13: 321. Validated in syn. by Cushman, 1922. U. S. Natl. Mus. Proc. 61 (art. 8): 8.

\**reparandus* Schulz.

*Banchus tricolor* Cameron, 1905 (1903 in Catalog). Preocc.

*Banchus reparandus* Schulz, 1906. Spolia hym., p. 95. N. name.

*tricolor* Cameron. Preocc. in *Banchus* by Schrank, 1802. Replaced by *reparandus* Schulz, q. v.

**Subfamily MESOLEIINAE**  
(= *Scolobatinae* of Catalog)

**Genus EUCEROS Gravenhorst, pp. 321-322**

*thoracicus* Cresson. Host: *Pristiphora erichsonii* (Htg.)

\**Scopiorus flavopictus* Ashmead MS, in Slosson, 1902. Ent. News 13: 6. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 13.

**Genus TREMATOPYGUS Holmgren, p. 322**

*Epactus* Thomson. After bibliographic reference add: Emend. Delete type.

**RHORUS subgenus CYPHANZA Cameron, p. 323**

*tristis* (Provancher).

*Erromenus tristis* Provancher. Change to *Erronemus* (!) *tristis*.

**XENOSCHESIS subgenus XENOSCHESIS Foerster, p. 325**

*cinctiventris* (Ashmead).

\**Pyracmon clypeatum* Ashmead MS, in Slosson, 1897. Ent. News 8: 237. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 26, 30.

\**Erigloea longitarsis* Ashmead MS, in Slosson, 1906. Ent. News 17: 324. Validated in syn. by Cushman, 1922 (*loc. cit.* pp. 12, 30).

**XENOSCHESIS subgenus POLYCINETIS Foerster, p. 325**

*limatus* (Cresson). Change ♂ to "♂" = ♀ (*teste* L. K. Smith, who saw type).

**Tribe MESOLEIINI**

Taxonomy: Burks, 1952. Ent. Soc. Amer. Ann. 45: 80-130 (key).

**Genus OPHELTES Holmgren, p. 326**

*glaucopertus flavipennis* (Provancher). Preocc. in *Campoplex* by Cresson, 1873. Replaced by *glaucopertus galbipennis* n. name, q. v.

\**glaucopertus galbipennis* Walkley, n. name. Oreg., Wash., Alaska.  
*Campoplex flavipennis* Provancher, 1874. Preocc.

**\*Genus NICTULA Burks**

*Nictula* Burks, 1952. Ent. Soc. Amer. Ann. 45: 81, 88.

Type: *Westwoodia fumipennis* Provancher. By monotypy and orig. desig.

Place in Catalog after *Opheltes*, p. 326.

*fumipennis* (Provancher). N. Y. Tranf. from *Perilissus*, p. 327.



**Genus PERILISSUS Holmgren, pp. 326-327**

*Oetophorus* Foerster. Transf. from p. 327 of Catalog (*teste* Burks, 1952. Ent. Soc. Amer. Ann. 45: 94).

*Symphobus* Foerster. Syn. of *Oetophorus* in Catalog.

Taxonomy: Burks, 1952. Ent. Soc. Amer. Ann. 45: 94-103.

\**aethus* Burks. Ohio (Hocking Co.)

*Perilissus aethus* Burks, 1952. Ent. Soc. Amer. Ann. 45: 95, 99. ♂.

\**araius* Burks. Conn., Ont., N. H., N. Y., N. J., Mich., S. C., Tenn., Colo.

*Perilissus araius* Burks, 1952. Ent. Soc. Amer. Ann. 45: 95, 101. ♀ ♂.

*bicolor* (Cresson). Preocc. in *Perilissus* by *bicolor* Brischke; place as syn. of *P. ruficornis* Ashmead.

*coloradensis* (Ashmead). Calif., Ariz., N. Dak., Sask., Ont.

*concolor* (Cresson). Iowa. Host: *Dolerus* sp.

*decoloratus* (Cresson). B. C.

*frontosus* (Davis). Transf. to *Mesoleius* Holmgren, p. 332.

*oculatus* (Davis). Transf. to *Mesoleius* Holmgren, p. 333.

*opulentus* (Davis). Transf. to *Parastadus* Burks, q. v.

*osflavus* (Davis). Transf. to *Mesoleius* Holmgren, p. 333.

*pleuralis* (Cresson). Transcont. in Transit. and U. Austr. Zones. Hosts: *Nematus* sp., *Pontania* sp. Transf. from *Oetophorus* Foerster, pp. 327-328.

*Oetophorus nasoni* Davis, (syn. by Burks, 1952, Ent. Soc. Amer. Ann. 45: 97).

*ruficornis* (Ashmead). Que. and Ont. south to Ala. Syn. of *P. bicolor* (Cresson) in Catalog, which is secondary homonym of *P. bicolor* Brischke.

*Mesoleptus bicolor* Cresson.

Taxonomy: Burks, 1952. Ent. Soc. Amer. Ann. 45: 95, 96-97, fig.

*stretchii* (Cresson). B. C., Colo. Transf. from *Oetophorus*, p. 328.

\**townesi* Burks. N. J., N. Y., Pa.

*Perilissus townesi* Burks, 1952. Ent. Soc. Amer. Ann. 45: 95. ♀ ♂.

**Genus PARASTADUS Burks**

*Parastadus* Burks, 1952. Ent. Soc. Amer. Ann. 45: 81, 92.

Type: *Erigloea opulenta* Davis. By monotypy and orig. desig.

Place in Catalog after *Perilissus*, p. 327.

*opulentus* (Davis). Md., Mass. Transf. from *Perilissus*, p. 327.

**Genus OETOPHORUS Foerster, pp. 327-328**

Syn. under *Perilissus* Holmgren, p. 326, and component species transf. to that genus (*teste* Burks, 1952, Ent. Soc. Amer. Ann. 45: 94).

*nasoni* Davis. Transf. to *Perilissus* as syn. of *pleuralis* (Cresson).

**Genus LAPHYROSCOPUS Foerster, p. 328**

*capitatus* (Cresson). Fla.

**Genus LATHROLESTES Foerster, pp. 328-329**

*mentalis* (Davis).

\**Monoblastus nigriiventris* Ashmead MS, in Slosson, 1902. Ent. News 12: 321. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 17.

**Genus MESOLEIUS Holmgren, pp. 331-334**

*affinis* (Ashmead). Preocc. in *Mesoleius* by Brischke 1892. Replaced by *congener* n. name, q. v.

\**aquilonaris* Walkley, n. name.

*Calliphrurus frigidus* Ashmead, 1902. Preocc.

\**congener* Walkley, n. name.

*Calliphrurus affinis* Ashmead, 1902. Preocc.

*frigidus* (Ashmead). Preocc. in *Mesoleius* by Holmgren, 1855. Replaced by *aquilonaris* n. name, *q. v.*

*frontosus* (Davis). Transf. from *Perilissus* Holmgren, p. 327 (*teste* Burks, 1952, Ent. Soc. Amer. Ann. 45: 87).

*lucens* (Provancher).

\**Hadrodactylus affinis* Ashmead MS, in Slosson, 1902. Ent. News 13: 6. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 4.

*oculatus* (Davis). Transf. from *Perilissus* Holmgren, p. 327 (*teste* Burks, 1952, Ent. Soc. Amer. Ann. 45: 87).

*osflavus* (Davis). Transf. from *Perilissus* Holmgren, p. 327 (*teste* Burks, 1952, Ent. Soc. Amer. Ann. 45: 87).

### Genus LAMACHUS Foerster, pp. 334-335

*contortionis* Davis. After *Lagarotis diprioni* Rohwer add 1915.

## Tribe EURYPROCTINI

### Genus IPOCTONINUS Hincks, p. 338

*rufigaster* (Provancher). Ont. (Ottawa). Transf. from syn. of *Acrotomus ornatus* (Walsh), p. 228 (*teste* W. R. M. Mason, 1955, Canad. Jour. Zool. 33: 20).

### Genus HADRODACTYLUS Foerster, pp. 338-339

*inceptus* (Cresson).

\**Mesoleptus Sancti-Hyacinthi* (misspelled *Sancti-Hyacinthi* in key) Provancher, 1875. Nat. Canad. 7: 251, 271, 272. ♂.

## Tribe CALLIDIOTINI

### Genus CALLIDIOTES Foerster, p. 340

*antennatus* (Cresson). Change to *antennata*.

## Subfamily COLLYRIINAE

Transf. with component genus and species to p. 209, placing after Pimplinae.

## Subfamily PLECTISCINAE

### Genus MEGASTYLUS Schidte, p. 343

*lineator* Schiødte.

\**Aperileptus pleuralis* Ashmead MS, in Slosson, 1902. Ent. News 13: 321. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 18.

## Subfamily ORTHOCENTRINAE

### Genus ORTHOCENTRUS Gravenhorst, pp. 345-346

*lucens* (Provancher). Delete parentheses.

*protuberans* Holmgren. Alaska.

Genus **STENOMACRUS** Foerster, pp. 347-348

**monticola** (Cushman).

\**Hypolepus* (!) *alticola* Ashmead MS, in Slosson, 1906. Ent. News 17: 324. Validated by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 16.

Subfamily **DIPLAZONINAE**

Thomson, in his treatment of this group (1890, Opusc. Ent. fasc. 14, p. 1464), stated that while Holmgren like Gravenhorst placed all the species in *Bassus*, Foerster made many new genera, some of the names of which he (Thomson) was using. Therefore the Thomson names are treated here as emendations of the Foerster genera.

Genus **DIPLAZON** Nees, pp. 348-349

*Zootrephus* of authors.

**bizonarius** (Gravenhorst). Transf. from *Zootrephus* of Catalog, p. 349.

**ichneumonoides** (Provancher), n. comb. Transf. from *Zootrephus* of Catalog, p. 349.

**rufiventris** (Gravenhorst), n. comb. Transf. from *Zootrephus* of Catalog, p. 349. (Revisionary study may place this elsewhere.)

**scutellaris** (Cresson). Alta., Oreg.

\***tricinctorius** (Thunberg). Utah; Europe.

*Ichneumon tricinctorius* Thunberg, 1822. Acad. Imp. Sci. St. Petersburg, Mem. 8: 278.

Genus **ZOOTREPHUS** Thomson, p. 349

Delete from Catalog. Not a valid genus but an emendation of *Zootrephes* Foerster of which no North American species are known. Transf. included species to *Diplazon* Nees, p. 348.

Genus **PROMETHES** Foerster, pp. 349-350

*Promethus* Thomson. Add "emend." after reference. Delete type design. **elongatus** (Provancher).

\**Promethus albicoxis* Ashmead MS, in Slosson, 1906. Ent. News 17: 324. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 25.

Genus **SYRPHOCTONUS** Foerster, pp. 350-351

**Homotropus** Foerster, 1868. Naturh. Ver. Rheinlande Verh. 25: 162.

Type: *Bassus elegans* Gravenhorst, by substitution of *Homotropus* for *Homocidus* Morley (= *Homoporus* Thomson lapsus for *Homotropus* Foerster).

**Homoporus** Thomson, 1890. Lapsus for *Homotropus*.

**Homocidus** Morley. N. name, unnecessarily proposed, for *Homoporus* Thomson.

**alaskensis** (Ashmead). Maine, Que.

**albopictus** (Davis). B. C.

**belangerii** (Provancher). Ill., Mich., Wis.

**cultriformis** (Davis).

\**Zootrephes bicoloripes* Ashmead MS, in Slosson, 1902. Ent. News 13: 321. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 30.

**fuscitarsus** (Provancher). Valid name. *Tryphon humeralis* Provancher, 1875. Preocc.

**humeralis** (Provancher). Preocc. in *Tryphon* by Gravenhorst, 1829. Replaced by former synonym, *fuscitarsus* Provancher, q. v.

*Himertosoma quinquecinctum* Ashmead MS, in Slosson, 1902. Ent. News 13: 320. Validated in syn. by Cushman, 1922, (*loc. cit. supra*).

*vertebratus* Cushman.

\**Syrphoctonus bilineatus* Ashmead MS, in Slosson, 1900. Ent. News 11: 320. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 29.

#### Genus PHTHORIMA Foerster, pp. 351-352

*Phthorima* Foerster, 1868. Under type designation change "Included by Dalla Torre, 1901" to: "Desig. by Viereck, 1914."

*Phthorimus* Thomson. Add "Emend." after bibliographic reference. Delete type desig.

#### Genus ENIZEMUM Foerster, p. 352

Delete *Homotropus* Foerster of Catalog from syn. See *Syrphoctonus* Foerster, p. 350.

*ornatum* (Gravenhorst). S. C.

### Subfamily METOPIINAE

#### METOPIUS subgenus CLÉMONTIA Michener, pp. 352-353

Misprinted *Clemontia* in Catalog.

*comptus* Cresson. After *laticinctus* Cresson, change p. xxviii to xxix, and ♂ to ♀.

*scitulus* Cresson. Change date from 1897 to 1879.

*xanthostigma* Ashmead. Va.

#### Genus PSEUDOMETOPIUS Davis, p. 353

\**Tylocomnoides* Uchida, 1940. Sapporo Nat. Hist. Soc. Trans. 16(3): 178 (syn. by Uchida, 1956. Ins. Mats. 20(1-2): 49).

Type: *Tylocomnoides egawai* Uchida, by monotypy and orig. desig.

#### Genus SPUDAEUS Gistel, p. 353

Misspelled *Spudeaus* in Catalog.

#### Genus CHORINAEUS Holmgren, p. 354

*californicus* Ashmead. Wash.

*carinatus* (Cresson). Maine, Conn., N. Y., N. J., Pa., Ohio. Hosts: *Ancyliis comptana fragariae* (W. & R.); *Strepsicrates smithiana* var. *indentana* (Dyar).

*excessorius* Davis. Iowa, Kans., Ga., Ala., Utah, Va., N. J. Host: *Ancyliis comptana fragariae* (W. & R.).

*opacitas* Davis. Ariz.

*pleturus* Davis. Ont., N. H., Conn., N. J., Pa., N. C., Wis.

#### Genus PERIOPE Haliday, pp. 354-355

*aethiops* (Cresson). Nebr.

#### Genus TRICLISTUS Foerster, p. 355

*brunnipes* (Cresson). Iowa, Mont., Oreg.

*propinquus* (Cresson). Ga., Ala.

*thoracicus* Ashmead. Md., Mich., Wis., S. Dak.

#### Genus HYPsicERA Latreille, p. 356

*mansuetor* (Gravenhorst). Pa., Minn., Colo., B. C.



**Genus EXOCHUS Gravenhorst, pp. 356-357**

*alpinus* Cushman. Preocc. in *Exochus* by Zetterstedt, 1838. Replaced by *montanus* n. name, q. v.

*mandibularis* Cushman.

\**Polyclistus frontalis* Ashmead MS, in Slosson, 1902. Ent. News 13: 321.

Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art. 8): 13.

\**montanus* Walkley, n. name.

*Exochus alpinus* Cushman, 1922. Preocc.

\**Amerolytus* (!) *flavifrons* Ashmead, MS, in Slosson, 1906. Ent. News 17: 324. Validated in syn. by Cushman, 1922, U. S. Nat. Mus. Proc. 61 (art. 8): 13. Preocc. in *Exochus* by Boheman, 1863.

\**pictilis* Walkley, n. name.

*Amesolytus pictus* Fyles, 1904. Preocc.

*pictus* (Fyles). Preocc. in *Exochus* by Holmgren, 1856. Replaced by *pictilis* n. name, q. v.

**Subfamily OPHIONINAE****Tribe CAMPOPLEGINI**

(= *Porizonini* of Catalog)

Nomenclature: Roman, 1932. Ent. Tidskr. 53(1): 9 [see *moderator* L.]

**Genus CYMODUSA Holmgren, p. 359**

*provancheri* (Viereck). Transf. to *Campoletis*, p. 367. Originally proposed as new name for *distinctus* (Provancher) preocc.

**Genus CAMPOPLEX Gravenhorst, pp. 359-363**

*coxalis* (Cushman). Preocc. in *Campoplex* by Spinola, 1851. Replaced by *ecoxalis* n. name, q. v.

\**ecoxalis* Walkley, n. name.

*Cymodusa coxalis* Cushman, 1922. Preocc.

\**eruficinctus* Walkley, n. name.

*Pyraemon ruficinctum* Viereck, 1925-26. Preocc.

*laevisima* (Viereck). Valid name.

*Neonortonia nigripes* Viereck, 1925. Preocc.

*mellipes* (Provancher). Valid name.

*Limneria rufipes* Provancher, 1874. Preocc.

*nigripes* (Viereck). Preocc. in *Campoplex* by Gravenhorst, 1829. Replaced by former synonym *laevisima* Viereck, q. v.

*ruficinctum* (Viereck). Preocc. in *Campoplex* by Gravenhorst, 1829. Replaced by *eruficinctus* n. name, q. v.

*rufipes* (Provancher). Preocc. in *Campoplex* by Gravenhorst, 1829. Replaced by former synonym *mellipes* (*lapsus*) Provancher, q. v.

*tecumseh* Viereck. Alta. Host: *Gnorimoschema* spp.

*validus* (Cresson.) Hosts: *Pyrausta penitalis* Grote, *P. futilalis* (Led.).

**Genus EXIDECHTHIS Walkley, new name**

(= *Idechthis* Foerster of Catalog, p. 363)

*Idechthis* Foerster, 1868. Change "? preocc." to Preocc. by Huebner, 1821.

All species in *Idechthis* in catalog will be n. comb. in *Exidechthis*.

*canescens* (Gravenhorst), n. comb. Host: *Clipsis peritana* (Clem.)

*Idechthis oahuensis* Ashmead, 1901. Fauna Hawaiensis, v. 1, p. 355. ♀. (Cited as a syn. of *canescens* in genotype cit.)

**Genus CASINARIA Holmgren, pp. 364-365**

Correct spelling of author name.

**grandis** Walley. As syn. of *C. texana* (Ashmead) in Catalog, which is preocc. *texana* (Ashmead). Syn. of **grandis** Walley. Preocc. by *C. texana* Ashmead, now in *Dusona*, p. 374.

**Genus BATHYPLECTES Foerster, p. 366**

**curculionis** (Thomson). Wyo. Host: *Hypera brunneipennis* (Boh.)

**Genus BIOLYSIA Schmiedeknecht, p. 366**

**tristis** (Gravenhorst). S. C., Calif.

**Genus CAMPOLETIS Foerster, pp. 366-370**

**argentifrons** (Cresson.) Hosts: *Agrotis ypsilon* (Rott.), *Ceramica picta* (Harr.), *Crambus zeelus* Fern., *Dargida procincta* (Grt.), *Grapholitha molesta* (Busck), *Heliothis zea* (Boddie), *H. virescens* (F.), *Hymenia recurvalis* (F.), *Lacinipolia stricta* (Wlk.), *Pyrausta nubilalis* (Hbn.).

\**Limneria consimilis* Ashmead, 1890. U. S. Natl. Mus. Proc. 12: 435. ♀.

*Mesoleptus dubitatus* Cresson. Add "Preocc." after bibliographic reference.

**distinctus** (Provancher). Preocc. in *Cymodusa* by Cresson, 1864. Renamed **provancheri** by Viereck, 1925-26, q. v.

**perdistinctus** (Viereck).

Biology: Wene, 1943. Jour. Econ. Ent. 36: 333-334—Grayson, 1944. Jour. Econ. Ent. 37: 712-73.

**provancheri** (Viereck). Transf. from *Cymodusa*, p. 359. Valid name for *distincta* (Provancher), preocc.

*Limneria distincta* Provancher, 1882. Change v. 3 to v. 13.

**Genus DUSONA Cameron, pp. 370-375**

**diversa** (Norton). W. Va.

**Genus NEPIERA Foerster, p. 375**

**marginata** (Provancher). Host: *Pyrausta pertextalis* Led.

**Genus HOROGENES Foerster, pp. 376-380**

**comptoniellae** (Viereck). Host: *Acrobasis betulella* Hulst.

**insularis** (Cresson). Hosts: *Plutella maculipennis* (Curt.), *Hellula undalis* (F.)

**punctorius** (Roman). Iowa.

**Genus HYPOSOTER Foerster, pp. 380-383**

**dimidiatus** (Ashmead).

*Zachresta dimidiata* Ashmead. Generic name misspelled in Catalog.

**exiguae** (Viereck). Host: *Anthocaris genutia* (F.).

**Genus OLESICAMPE Foerster, pp. 383-385**

**flaviclepeus** (Viereck). Valid name.

*Limneria sericea* Provancher, 1875. Preocc.

**sericea** (Provancher). Preocc. in *Olesicampe* by Holmgren, 1854. Replaced by former synonym *flaviclepeus* Viereck, q. v.

**Tribe CREMASTINI**

**Genus ZALEPTOPYGUS Viereck, pp. 388-390**

**retiniae** (Cresson). Host: *Tetralopha robustella* Zell.

**Genus PSEUDERIPTERNUS Viereck, p. 390**

**elongatus** (Davis).

\**Pseuderipternus gracilipes* Cushman, 1917. U. S. Natl. Mus. Proc. 53: 506, 507. ♀ ♂.

**Genus CREMASTUS Gravenhorst, pp. 390-392**

*forbesi* Weed.

*Cremastus tortricidis* Cushman. N. syn., *teste* L. M. Walkley after study of abundant material.

*longigenalis* Cushman.

\**Temelucha scutellata* Ashmead MS, in Slosson, 1900. Ent. News 11: 320. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art.8): 10.

*platynotae* Cushman. Change host name to: *Platynota stultana* (Walsm.)

*tortricidis* Cushman. N. syn. of *forbesi* Weed, *q. v.*

**Tribe TERSILOCHINI****Genus LEPTOPYGUS Foerster, p. 393**

*borealis* (Provancher).

\**Leptopygus monticola* Ashmead MS, in Slosson, 1897. Ent. News 8: 237. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. Proc. 61 (art.8): 17.

**\*Genus LUCHATEMA Walkley**

*Luchatema* Walkley, 1956. Ent. News 67: 154.

Type: *Luchatema baldufi* Walkley. By monotypy and orig. desig.

Place in Tersilochini on p. 394, after *Tersilochus* Holmgren.

\**baldufi* Walkley. Wis., Minn., S. Dak., Wyo., Sask., Iowa, Ill., N. Y., Mass. Host: *Rhynchites bicolor* (F.).

*Luchatema baldufi* Walkley, 1956. Ent. News 67: 154. ♀ ♂.

**Tribe ANOMALINI****Genus ANOMALON Panzer, p. 395**

*ejuncidum* Say. Host: *Leichenium caniculatum variegatum* Klug.

**Genus OPHIONELLUS Westwood, pp. 395-396**

*virginiensis* (Cresson). Ind.

**Genus GRAVENHORSTIA Boie, pp. 397-398**

*alaskensis* (Ashmead). Alaska. Transf. to *Agrypus* Foerster.

*luteopectus* (North). Change from *luteopecta*.

*magniceps* (Cresson). Ariz. Host: *Anisota oslari* Roths.

*provancheri* (Dalla Torre). Transf. to *Agrypus* Foerster.

**\*Genus AGRYPON Foerster**

*Agrypus* Foerster, 1860. Naturh. Ver Rheinlande Verh. 17:151.

Type: *Ophion flaveolatus* Gravenhorst. Desig. by Viereck, 1914.

Place in Gravenhorstiina on p. 398, before *Labrorychus* Foerster.

*alaskensis* (Ashmead), n. comb. Alaska. Transf. from *Gravenhorstia* Boie, p. 397.

*provancheri* (Dalla Torre), n. comb. Transf. from *Gravenhorstia* Boie, p. 397.

**Genus LABRORYCHUS Foerster, p. 398**

*chlamidatus* (Provancher).

\**Atrometus flavifrons* Ashmead MS, in Slosson, 1902. Ent. News 13: 6. Validated in syn. by Cushman, 1922, U. S. Natl. Mus. 61 (art. 8): 16.

**Genus THERION Curtis, pp. 399-400**

*californicum* (Cresson). Preocc. in *Anomalon* by Cresson, 1878 (p. 366).  
Replaced by former synonym, *longipes* Provancher, q. v.

*longipes* (Provancher). Valid name. Host: *Heliothis* sp.  
*Anomalon californicum* Cresson, 1878 (p. 367). Preocc.

*morio* (Fabricius).

\**Anomalon nigripennis* Provancher, 1874. Nat. Canad. 6:173. ♀ ♂.

**Tribe OPHIONINI****Genus OPHION Fabricius, p. 401**

*ancyloneura* Cameron. Host: *Prodenia eridania* (Cram.)

*bifoveolatus* Brullé.

*Ophion nigrivarius* Provancher. Change to *nigrovarius*, and add p. 103 to reference.

\**epallidus* Walkley, n. name.

*Ophion bilineatus* var. *pallida* Cockerell, 1889. Preocc.

*pallidus* Cockerell. Preocc. in *Ophion* by Taschenberg, 1875. Replaced by *epallidus* n. name, q. v.

**Genus SIMOPHION Cushman, p. 402**

*excarinatus* Cushman. N. Mex., Tex.

**Genus ENICOSPILUS Stephens, pp. 403-405**

*cubitalis* (Morley). Preocc. in *Allocamptus* by Szépligeti, 1906. Replaced by *excubitalis* n. name, q. v.

\**excubitalis* Walkley, n. name.

*Allocamptus cubitalis* Morley, 1912. Preocc.

**Subfamily MESOCHORINAE****Genus ASTIPHROMMA Foerster, p. 405**

*pectorale* Ashmead. Wis.

Alphabetic List of Unplaced Species,  
pp. 407-409

\**Anomalon exrufum* Walkley, n. name.

*Anomalon rufum* Provancher, 1874. Preocc.

*Anomalon rufum* Provancher. Preocc. in *Anomalon* by Holmgren, 1857.  
Replaced by *exrufum* n. name, q. v.

*Cremastus piceus* Cresson. Misspelled "*Crematus*" in Catalog.

\**Tryphon exobscurus* Walkley, n. name.

*Stilpnus obscurus* Cresson, 1865. Preocc.

*Tryphon obscurus* (Cresson). Preocc. in *Tryphon* by Stephens, 1835. Replaced by *exobscurus* n. name, q. v.

**Superfamily CHALCIDOIDEA****Family MYMARIDAE****Genus OOCOTONUS Holiday, pp. 410-411**

*americanus* Girault. In reference, change Ent. News 26: 67 to 27:69.



**Genus LYMAENON Haliday****(= *Gonatocerus* of Catalog, pp. 411-413)**

*Gonatocerus* Nees is a member of the Chalcididae, *teste* Kryger, 1934. Ent. Meddel. 18 (5): 503, 505; it has no known North American spp. Next available name is *Lymaenon* Haliday. All species listed in Catalog should be n. comb.

*koebelei* (Perkins). U. S.

*latipennis* (Girault). N. Y., Pa.; delete "? Canada."

*mexicanus* (Perkins). Tex., Calif.

*novifasciatus* (Girault). Calif.

*ovicenatus* (Leonard and Crosby). Host: Delete "Cicadellid eggs in sugar cane."

*rivalis* (Girault). Host: Cicadellid eggs in sugar cane.

**Genus PARALLELAPTERA Enoch, p. 414**

*rex* (Girault). Minn.

**Genus PATASSON Walker, pp. 414-415**

Revision: Doutt, 1949. Pan-Pacific Ent. 25: 155-160 (*Anaphoidea*).

\**brunnea* (Doutt), n. comb. Calif.

*Anaphoidea brunnea* Doutt, 1949. Pan-Pacific Ent. 25: 159, 160. ♀.

\**conferta* (Doutt), n. comb. Calif.

*Anaphoidea conferta* Doutt, 1949. Pan-Pacific Ent. 25: 155, 160. ♀.

\**gerrisophaga* (Doutt), n. comb. Calif. Host: Eggs of *Gerris* sp.

*Anaphoidea gerrisophaga* Doutt, 1949. Pan-Pacific Ent. 25: 156, 160. ♀.

\**longiclava* (Doutt), n. comb. Calif.

*Anaphoidea longiclava* Doutt, 1949. Pan-Pacific Ent. 25: 158. ♀.

**Genus ANAGRUS Haliday, p. 415**

*delicatus* Dozier. Calif.

**Genus MYMAR Curtis, pp. 415-416**

Taxonomy: Soyka, 1955. München. Ent. Gesell. Mitt. 44/45: 460-461, 475.

**Genus ACMOPOLYNEMA Ogloblin, p. 416**

*bifasciatipennis* *bifasciatipennis* (Girault). Calif.

**Genus POLYNEMA Haliday, pp. 416-418**

*picipes* Girault. Calif.

**Family TRICHOGRAMMATIDAE****Genus TRICHOGRAMMA Westwood, pp. 419-421**

*minutum* Riley.

*Trichogramma minutissimum* Packard. Change to *Trichogramma m.*

**Genus MEGAPHRAGMA Timberlake, p. 422**

*mymaripenne* Timberlake; correct spelling of *mymaripennis* of Catalog, p. 422. Calif. Delete (!) in ref.

*mymaripennis* of Catalog; misspelling of *mymaripenne* Timberlake.

**Genus OLIGOSITA Haliday, pp. 422-423**

*sanguinea sanguinea* (Girault). Fla., Calif.

**Genus UFENS Girault, p. 423**

*spiritus spiritus* Girault. Ga., Fla., La.

**Family EULOPHIDAE****Genus SYMPIESIS Foerster, pp. 426-428**

*guttatipennis* Girault. Wyo.

*nigrifemora* Ashmead. Idaho

*viridula* (Thomson). Ill., Wis., Iowa, Minn., Nebr., Colo. Wyo.; Europe.

**Genus SOLENOTUS Foerster, p. 429**

*carlylei* (Girault). Syn. of *intermedius* (Girault).

*intermedius* (Girault). Ariz., Calif.

*Diaulinus carlylei* Girault. N. syn., types examined by B. D. Burks.

**Genus EULOPHUS Geoffroy, p. 430**

Delete *Eulophus* Geoffroy, 1762. Hist. Abrégé des Insectes. This publication not available for nomenclatorial purposes, *teste* Opinion 228, Internatl. Comn. Zool. Nomencl., April 1954.

**\*Genus EULOPHUS Olivier**

*Eulophus* Olivier, 1791. Encycl. Méth., v. 6, p. 454.

Type: *Ichneumon ramicornis* Fabricius. By monotypy.

Replaces *Eulophus* Geoffroy, pp. 430-431.

*nebulosus* (Provancher). Wis.

**Genus DAHLBOMINUS Hincks, p. 431**

*fuscipennis* (Zetterstedt). Wis. Host: *Neodiprion swaini* Midd.

**\*Genus CARDIOGASTER Motschulsky**

(= *Euderomphale* of Catalog, p. 432)

*Cardiogaster* Motschulsky, 1863. Soc. Nat. Moscou Bul. 36: 72.

Type: *Cardiogaster fusciventris* Motschulsky. By monotypy.

\**Pteroptrix* Howard, 1895, *not* Westwood. U.S. Dept. Agr., Div. Ent. Tech. Ser. 1: 17. No. syn.

Type: *Pteroptrix flavimedia* (Howard). By monotypy.

*Euderomphale* Girault, 1916. N. syn.

*Aleurodiphagus* Nowicki, 1929. N. syn.

Type: *Pteroptrix flavimedia* (Howard). Desig. in Catalog; *Aleurodiphagus chelidonii* Kollar, orig. desig.; is a ms. name.

**\*Genus PTEROPTRIX Westwood**

(= *Archenomus* of Catalog, p. 432)

*Pteroptrix* Westwood, 1833. London, Edinb., and Dublin Phil. Mag. and Jour. Sci. (ser. 3) 3: 344.

Type: *Pteroptrix dimidiatus* Westwood. By monotypy.

\**Pterothrix* Nees, 1834. Hym. Ichn. Affin. Monog., v. 2, p. 409. Emend.

\**Gyrolasia* Foerster, 1856. Hym. Stud., v. 2, p. 145. N. name for *Pterothrix*, unnecessarily proposed.

*Archenomus* Howard, 1898. (Syn. by Mercet, 1928. Real. Soc. Espan. Hist. Nat. 28: 507.)

\**Pteroptrichoides* Fullaway, 1913. Hawaii. Agr. Expt. Sta. Ann. Rpt. 1912, p. 27.

Type: *Pteroptrichoides perkinsi* Fullaway. By monotypy and orig. desig.

\**Pseudopteroptrix* Fullaway, 1918. Hawaii. Ent. Soc. Proc. 3: 464.

Type: *Pseudopteroptrix imitatrix* Fullaway. By monotypy.

*bicolor* Howard. Syn. of *dimidiatus* Westwood.

\**dimidiatus* Westwood. Ga., Ohio; Cosmopolitan. Hosts: *Aspidiotus* sp., *Ferrisiana* sp.

*Pteroptrix dimidiatus* Westwood, 1833.

*Archenomus bicolor* Howard, 1898.

\*Genus **MARLATTIELLA** Howard

*Marlattiella* Howard, 1907. U. S. Dept. Agr. Div. Ent. Tech. Ser. 12: 73.  
Type: *Marlattiella prima* Howard. By monotypy and orig. desig.

Insert in Aphelininae following *Marietta* Motschulsky, p. 433.

\**prima* Howard. Md.; China. Host: *Leucaspis japonica* Ckll.

*Marlattiella prima* Howard, 1907. U. S. Dept. Agr. Bur. Ent. Tech. Ser. 12: 73. ♀.

Genus **APHYTI** Howard, pp. 433-434

Revision: Compere, 1955. Calif. Univ. Pubs., Ent. 10: 271-320.

\**citrinus* Compere. Calif.; ?Japan. Host: *Aonidiella citrina* (Coq.)

*Aphytis citrinus* Compere, 1955. Calif. Univ. Pubs., Ent. 10: 309, 312. ♀.

\**dealbatus* Compere. Calif. Host: *Lepidosaphes ulmi* (L.)

*Aphytis dealbatus* Compere, 1955. Calif. Univ. Pubs., Ent. 10: 278, 286. ♀.

\**lepidosaphes* Compere. Calif.; China. Host: *Lepidosaphes beckii* (Newm.).

*Aphytis lepidosaphes* Compere, 1955. Calif. Univ. Pubs., Ent. 10: 279, 307. ♂ ♀.

\**lingnanensis* Compere. Tex., Calif. Host: *Aonidiella aurantii* (Mask.).

*Aphytis lingnanensis* Compere, 1955. Calif. Univ. Pubs., Ent. 10: 279, 303. ♂ ♀.

\**maculicornis* (Masi). Calif.; Cosmopolitan. Host: *Parlatoria oleae* (Colvée).

*Aphelinus maculicornis* Masi, 1911. Lab. Zool. Gen. e Agr. Portici Bol. 5: 158. ♀.

\**melanostictus* Compere. Calif. Host: *Aspidiotus juglans-regiae* Comst.

*Aphytis melanostictus* Compere, 1955. Calif. Univ. Pubs., Ent. 10: 278, 287. ♂ ♀.

*proclia* (Walker).

Taxonomy: Compere, 1955. Calif. Univ. Pubs., Ent. 10: 289 (*diaspidis*).

Genus **APHELINUS** Dalman, pp. 434-435

*nigritus* Howard. Ariz., Calif.

Genus **PROSPALTELLA** Ashmead

(= *Prospaltella* Howard of Catalog, pp. 437-438)

\**brasiliensis* (Hempel). Fla.; Haiti, Brazil. Host: *Aleurothrixus floccosus* (Mask.)

*Prospalta brasiliensis* Hempel, 1904. Bol. da Agr. (ser. 5) 1: 20. ♀.

\**elongata* Dozier. La., Tex., Calif. Host: *Lepidosaphes gloverii* (Pack.).

*Prospaltella elongata* Dozier, 1937. Puerto Rico Univ. Jour. Agr. 21: 128. ♀.

*diaspidicola* Silvestri. Tex. Change orig. ref. from *Prospalta diaspidicola* Silvestri, 1909 to *Prospaltella d.*

Genus **ASPIDIOTIPHAGUS** Howard, pp. 438-439

*citrinus citrinus* (Craw).

\**Prospaltoides howardi* Brèthes, 1914. Nunquam Otiosus, Buenos Aires, p. la. (Syn. in genotype cit. of *Prospaltoides* in Catalog.)

\**howardi* Brèthes. Syn. of *citrinus citrinus* (Craw).

**Genus COCCOPHAGUS Westwood, pp. 439-441**

\**eleaphilus* Silvestri. Calif.; Eritrea. Host: *Saissetia oleae* (Bern.).

*Coccophagus eleaphilus* Silvestri, 1915. Lab. Zool. Gen. e Agr. Portici Bol. 9: 318. ♂ ♀.

\**eritreaensis* Compere. Calif.; Eritrea. Hosts: *Coccus hesperidum* L., *Saissetia oleae* (Bern.).

*Coccophagus eritreaensis* Compere, 1931. Calif. Univ. Pubs., Ent. 5: 254. ♂ ♀.

*gossypariae* Gahan Syn. of *insidiator* (Dalman).

\**hawaiiensis* Timberlake. Calif.; Hawaii, Japan, Hosts: *Coccus pseudomagnoliarum* (Kuwana), *Pulvinaria* sp., *Lecanium* sp., *Saissetia nigra* Niet.

*Coccophagus hawaiiensis* Timberlake, 1926. Hawaii. Ent. Soc. Proc. 6: 315. ♀.

\**insidiator* (Dalman). N. B., N. Y., Mass., Colo.; Europe. Host: *Gossyparia spuria* (Mod.)

*Entedon insidiator* Dalman, 1825. Svenska Vetensk. Akad. Handl. 46: 371.

*Coccophagus gossypariae* Gahan, 1927. N. syn. (based on comparison of type with European material of *insidiator* by C. F. W. Muesebeck and B. D. Burks).

\**japonicus* Compere. Calif.; Japan. Hosts: *Coccus pseudomagnoliarum* (Kuwana), *Ceroplastes* sp., *Pulvinaria* sp.

*Coccophagus japonicus* Compere, 1924. So. Calif. Acad. Sci. Bul. 23: 122. ♀.

\**quaestor* Girault. Wis., Ont.; Mexico. Host: *Toumeyella numismaticum* (P. and M.).

*Coccophagus quaestor* Girault, 1917. Descr. Stellarum Nov., p. 2.

\**yoshidae* Nakayama. Calif.; Japan. Hosts: *Coccus pseudomagnoliarum* (Kuwana), *C. hesperidum* L.

*Coccophagus yoshidae* Nakayama, 1921. Philippine Jour. Sci. 18: 98. ♀.

**Genus CERATONEURA Ashmead, pp. 441-442**

\**petiolata* Ashmead. Fla.; West Indies, Mexico, Venezuela.

*Ceratoneura petiolata* Ashmead, 1894. Linn. Soc. London, Jour. Zool. 25: 179. ♀ ♂.

**Genus GALEOPSOMOPSIS Girault, p. 443**

*squamosa* Girault. Change Calif. to Kans.

**Genus THYMUS Girault**

(= *Thymiscus* of Catalog, p. 443)

*Thymiscus* Ghesquière, 1946. N. name unnecessarily proposed.

**Genus TETRASTICHUS Walker, pp. 443-450**

\**Anellaria* Bakkendorf, 1934(1933). Ent. Meddel. 19: 8.

Type: *Anellaria conomeli* Bakkendorf. By monotypy.

Taxonomy: Bakkendorf, 1953. Ent. Meddel. 26: 564, 570.

*carpatius* Burks. Syn. of *tineivorus* Ferrière.

*chrysopae* (Crawford). Minn.

*floridiae* (Girault). Transf. to *Aprostocetus*, pp. 450-451.

*hagenowii* (Ratzeburg).

Biology: Roth and Willis, 1954. Amer. Ent. Soc. Trans. 80: 53-72.—  
Edmunds, 1955. Ent. Soc. Amer. Ann. 48: 210-213.



*ichthyus* of Catalog, p. 446; misspelling of *ichthys* Burks.

*ichthys* Burks; correct spelling of *ichthyus* of Catalog p. 446.

*nebraskensis* (Girault). S. Car.

*oncideridis* Gahan. Transf. to *Aprostocetus*, pp. 450-451.

*phegus* Burks. Ont.

\**sokolowskii* Kurdjumov. Ont., N. Y.; Europe, India. Host: *Plutella maculipennis* (Curt.).

*Tetrastichus sokolowskii* Kurdjumov, 1912. Russ. Ent. Obozr. (Rev. Russe d'Ent.) 12: 238. ♂ ♀.

*strobilus* Burks. Minn., Idaho.

*silvaticus* Gahan. Maine, Mich., Wash.

\**tineivorus* Ferrière. N. H., Mass., Conn., Md., Ohio, Mo., Calif.; Europe. Hosts: *Tineola bisselliella* (Hum.), *Tinea fuscipunctella* Haw., *T. pellionella* (L.), *Apanteles carpatus* (Say).

*Tetrastichus tineivorus* Ferrière, 1941. Schweiz. Ent. Gesell. Mitt. 18: 376. ♂ ♀.

*Tetrastichus carpatus* Burks, 1943.

Taxonomy: Gahan, 1951. Canad. Ent. 83: 171.

Biology: Back, 1945. Ent. Soc. Wash. Proc. 47: 182-183 (*carpatus*).

*trisulcatus* Provancher. Fla.

#### Genus APROSTOCETUS Westwood, pp. 450-451

*floridae* (Girault), n. comb. Fla. Transf. from *Tetrastichus*, p. 446.

*oncideridis* (Gahan), n. comb. W. Va. Host: *Oncideres cingulatus* (Say). Transf. from *Tetrastichus*, p. 448.

#### Genus SYNTOMOSPHYRUM Foerster, pp. 451-452

Revision: Burks, 1952. Ent. Soc. Wash. Proc. 54: 258-264.

\**blattae* Burks. W. Va., N. C., Ohio. Host: Oothecae of *Parcoblatta* sp.

*Syntomosphyrum blattae* Burks, 1952. Ent. Soc. Wash. Proc. 54: 263. ♂ ♀.

*esurus* (Riley). Delete *Chilocorus similis* (Rossi) from host list.

#### Genus MELITTOBIA Westwood, p. 452

\**Philopison* Cameron, 1908. Deut. Ent. Ztschr., p. 560.

Type: *Philopison clavicornis* Cameron. My monotypy.

\**Sphecophagus* Brèthes, 1910. Mus. Nac. Hist. Nat., Buenos Aires 20: 208.

Type: *Sphecophagus sceliphronidis* Brèthes. By monotypy.

\**Sphecophilus* Brèthes, 1910. Mus. Nac. Hist. Nat. Buenos Aires 20: 310. N. name, unnecessarily proposed for *Sphecophagus*.

Taxonomy: DeSantis, 1949. La Plata Univ. Nac. Inst. Mus. Notas (Zool.) 14: 276.

*chalybii* Ashmead. Utah.

*gerardi* Hickok. Syn. of *megachilis* (Packard).

*megachilis* (Packard).

\**Pteromalus gerardi* Hickok, 1875. Poughkeepsie Soc. Nat. Hist. Proc. 1: 131. ♂ ♀. N. syn., *teste* B. D. Burks, on basis of orig. descr.

#### Genus CRATAEPUS Foerster, p. 452

*fletcheri* Ashmead. Syn. of *marbis* Walker.

\**marbis* (Walker). Ont.; Europe. Hosts: *Orellia florescentiae* (L.), dipterous larvae in *Cirsium arvense*, *Terellia serratulae* (L.)

*Cirrospilus marbis* Walker, 1839. Monog. Chalc., v. 1, p. 330. ♀.

\**Crataepus aquisgranensis* Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 62. ♀.

*Crataepus Fletcherii* Ashmead, 1892.

Taxonomy and Biology: Gradwell, 1953. Ent. Monthly Mag. 89: 73-76.

**Genus MIOTROPIS Thomson, pp. 454-455**

Taxonomy: Girault, 1919. Brooklyn Ent. Soc. Bul. 11: 111-112 (key to spp.).

**Genus ELACHERTUS Spinola, pp. 455-456**

*coxalis* Howard. Wis.

*proteoteratis* (Howard). Ariz., Calif.

**Genus ZAGRAMMOSOMA Ashmead, pp. 459-460**

*multilineatum multilineatum* (Ashmead).

\**Hippocephalus nubilineatus* (!) Hopkins, 1893. W. Va. Agr. Expt. Sta. Bul. 32, p. 227.

**Genus CLOSTEROCERUS Westwood, p. 461**

*tricinctus* (Ashmead). Wis.

\**trifasciatus* Westwood. Maine, Minn., S. Dak., Calif.; Europe.

*Closterocerus trifasciatus* Westwood, 1833. Mag. Nat. Hist. 6: 420.

**\*Genus BURKSIA Fullaway**

*Burksia* Fullaway, 1955. Hawaii. Ent. Soc. Proc. 15: 409.

Type: *Burksia viridimaculata* Fullaway. By monotypy and orig. desig.

Insert in Entedontinae after *Euderus* Haliday, p. 462.

\**viridimaculata* Fullaway. Fla.; Hawaii. Host: Assoc. with armyworm larvae in Bermuda grass.

*Burksia viridimaculata* Fullaway, 1955. Hawaii. Ent. Soc. Proc. 15: 410. ♀.

**Genus CHRYSOCHARIS Foerster, pp. 463-464**

*orientalis* (Girault). Mass. Host: *Phytomyza* sp. leaf miner on *Ilex glabra*.

**Genus HOPLOCREPIS Ashmead**

Transf. from Unplaced genera, p. 593, and insert in Entedontinae following *Chrysocharomyia* Girault, p. 465.

\**albiclavus* Ashmead. Mass., Fla.; West Indies.

*Hoplocrepis albiclavus* Ashmead, 1890. Ent. Soc. Wash. Proc. 1: 236. ♀.

**Genus ACHRYSOCHARIS Girault, p. 465**

*divina* Girault. In ref., change Ent. News 27 to 28.

**Genus HORISMENUS Walker, pp. 467-468**

*floridanus* (Ashmead). N. J., Va., Ind., Ill., Kans., Tex.

*missouriensis* (Ashmead). N. Y., S. Dak., Okla. Host: *Acanthoscelides horni* (Pic).

**\*Genus PEDIOBIUS Walker**

(= *Pleurotropis* of Catalog, pp. 468-470)

*Pediobius* Walker, 1846. Ann. Mag. Nat. Hist. 17: 184.

Type: *Entedon (Pediobius) imbreus* Walker. Desig. by Ashmead, 1904, p. 384, not p. 344.

*Pleurotropis* Foerster, 1856. Syn. of *Pediobius* Walker, *teste* Ferrière, 1953; generic syn. under *Pleurotropis* in Catalog transf. to *Pediobius*, and all spp. listed in Catalog under *Pleurotropis* become n. comb.

*Pseudacrias* Girault, 1913. N. syn.

*Pseudacriasoides* Girault, 1917. N. syn.

*Epipleurotropis* Girault, 1917. N. syn.

Taxonomy: Ferrière, 1953. Ist. Ent. R. Univ. Bologna Bol. 19: 400.

**aphidiphagus** (Ashmead), n. comb. Que., Fla., Ind., Ill., Kans. Hosts: Tineid larvae in oak apple gall; reared from galls of *Amphibolips inanis* O. S. and *A. spongifica* (O. S.); ? *Macrosiphum solanifolii* (Ashm.). Transf. from *Entedon*, p. 470.

*Entedon aphidiphagus* Ashmead, 1887.

*Asecodes quercicola* Ashmead, 1888.

Taxonomy: Gahan, 1951. Canad. Ent. 83: 170.

**quercicola** (Ashmead). Syn. of **aphidiphagus** (Ashmead).

**williamsoni** (Girault). Utah. Host: *Physocephala texana* (Williston) in *Bombus* nests.

#### Genus ENTEDON Dalman, p. 470

**aphidiphagus** Ashmead. Transf. to genus *Pediobius* Walker (= *Pleurotropis* of Catalog), p. 468.

**leucogramma** (Ratzeburg). Ohio, Iowa, Calif.

### Family ELASMIDAE

#### Genus ELASMUS Westwood, pp. 471-472

**meteor**i Ashmead. Iowa. Host: *Meteor* sp., par. on *Dioryctria disclusa* Hein.

**setosiscutellatus** Crawford; correct spelling of *setosiscutellum* of Catalog, p. 472.

### Family THYSANIDAE

#### Genus THYSANUS Walker, pp. 472-474

**dactylopii** (Ashmead). Change D. C. to Calif.

**elongatus** (Girault).

Taxonomy: Novitzky, 1954. Univ. Milano, Bol. di Zool. Agr. e Bach. 20: 207 (*Signiphorina*).

**\*fasciatus** (Girault). Tex., Calif.; Mexico, Cuba, Panama. Hosts: Bred from *Saissetia nigra* (Nietn.), *Melanaspis lilacina* (Ckll.), and *Coccus viridis* Green; prob. secondary par.

*Signiphora fasciata* Girault, 1913. U. S. Natl. Mus. Proc. 45: 219. ♀.

**niger** (Ashmead), Fla.

### Family EUTRICHOSOMATIDAE

#### Genus EUTRICHOSOMA Ashmead, p. 474

**albipes** Crawford. Ga.

**mirabile** Ashmead. Md., D. C., Kans., Okla., N. Mex., Idaho.

### Family ENCARTIDAE

#### Genus ANAGYRUS Howard, pp. 475-476

**\*antoninae** Timberlake. Fla., Tex.; Hawaii, Japan. Host: *Antonina graminis* (Mask.).

*Anagyrus (Epidinocarsis) antoninae* Timberlake, 1920. Hawaii. Ent. Soc. Proc. 4: 409-413. ♂ ♀.

Biology: Riherd, 1950. Fla. Ent. 33: 18-22.—Riherd, 1951. Jour. Econ. Ent. 44: 622-623.

**\*smithi** Doutt. Calif. Host: *Spilococcus implicatus* Ferris.

*Anagyrus smithi* Doutt, 1952. Hawaii Ent. Soc. Proc. 14: 401. ♂ ♀.



yuccae (Coquillett). Calif.

**\*Genus ANATHRIX Burks**

*Anathrix* Burks, 1952. N. Y. Ent. Soc. Jour. 60: 179.

Type: *Anathrix argyrus* Burks. By monotypy and orig. desig.

Insert in Encyrtinae following *Anagyrus* Howard, p. 476.

\**argyrus* Burks. Que., Va., Tex. Host: *Ferrisiana virgata* (Ckll.)

*Anathrix argyrus* Burks, 1952. N. Y. Ent. Soc. Jour. 60: 181. ♀.

**Genus COMPERIA Gomes, p. 476**

*merceti* (Compere). N. J. south to Fla., west to Ill., Kans., and Ariz.; West Indies, Central and South Amer., Hawaii. Host: Delete *Blattella germanica* (L.).

Biology: Lawson, 1954. Kans. Ent. Soc. Jour. 27: 128-142.

**Genus ANUSIA Foerster, P. 477**

*xerophila* Brues. Transf. to *Epanusia* Girault, p. 504.

**Genus PARAPSILOPHRYS Howard, p. 481**

*gelechia* Howard. Wis., Minn., Utah.

**Genus COPIDOSOMA Ratzeburg, pp. 481-483**

*Arrenoclavus* Doutt, 1948; correct spelling of *Arrhenoclavus* of Catalog, p. 481.

*Arrhenoclavus* of Catalog, p. 481; misspelling of *Arrenoclavus* Doutt, 1948.

*Berecynthiscus* Ghesquière, 1946; correct spelling of *Berecynthiscus* of Catalog, p. 481.

*Berecynthiscus* of Catalog, p. 481; misspelling of *Berecynthiscus* Ghesquière, 1946.

*bakeri bakeri* (Howard). Host: Change *Sidenia devastator* (Bruce) to *Cymodes d.*

**Genus CERCHYSIUS Westwood, p. 483**

*hubbardii* Ashmead. Wash.

*marylandicus* Girault. Wis.

**Genus CHALCASPIUS Howard, p. 484**

*phenacocci* (Ashmead). Md., Fla., Iowa, Mo., Idaho, Utah.

**Genus BOTHRIOTHORAX Ratzeburg, pp. 484-485**

*rotundiformis* Howard. Colo., Wash.

**Genus PRIONOMITUS Mayr, p. 487**

*mitratus* (Dalman). Wash.

**Genus PSYLLAEPHAGUS Ashmead, pp. 487-488**

*pachypsyllae* (Howard). Ohio, Tex., Idaho.

**Genus MICROTERYS Thomson, pp. 488-489**

*claripennis* Compere. Pa., N. C.

*xanthopsis* Compere. Utah, Ariz.

**Genus EPIENCYRTUS Ashmead, p. 489**

*artaceae* (Howard). Host: Ophionine ichneumonid.

**Genus APHYCUS Mayr, pp. 492-495**

*argyrocomus* (Compere). In ref. change 8: 8 to 8: 10.

*johnsoni* Howard. Va., N. C. Host: *Coccus hesperidum* L.



**kingi** Timberlake. Change Kans. to Mass.; add Ohio.

**lounsburyi** Howard. S. and Cent. Africa, S. Amer., Australia; delete Mass.  
Host: Delete *Cheiloneurus inimicus* Compere.

\***terryi** Fullaway. Ga., Fla., La.; Hawaii. Host: *Pseudococcus boninsis* (Kuwana).

*Aphycus terryi* Fullaway, 1913. Hawaii. Ent. Soc. Proc. 2: 281. ♂ ♀.

### Genus CHEILONEURUS Westwood, pp. 497-498

Revision: Change Gahan, 1913 to 1914.

\***pulvinariae** Dozier. D. C., N. C., Fla.; Puerto Rico. Host: *Aphycus flavus*  
How. par. on *Pulvinaria* sp.

*Cheiloneurus pulvinariae* Dozier, 1927 (1925). Puerto Rico Dept. Agr.  
Jour. 9: 363. ♂ ♀.

### \*Genus APTERENCYRTUS Ashmead

(= *Chiloneurinus* of Catalog, p. 499)

*Apterencyrtus* Ashmead, 1905. Canad. Ent. 37: 5.

Type: (*Apterencyrtus pulchricornis* Ashmead) = *Chiloneurus microphagus* Mayr. By monotypy.

*Chiloneurinus* Mercet, 1921.

Taxonomy: Gahan, 1951. Canad. Ent. 83: 171.

**microphagus** (Mayr.) Fla.

### \*Genus DIVERSINERVUS Silvestri

*Diversinervus* Silvestri, 1915. Portici R. Scuola Super. di Agr., Lab.  
Zool. Gen. e Agr. Bol. 9: 301.

Type: *Diversinervus elegans* Silvestri. By monotypy and orig. desig.

\***Cheiloneuroides** Girault, 1915. Queensland Mus. Mem. 4: 96.

Type: (*Cheiloneuroides bicristatus* Girault) = *Diversinervus elegans* Silvestri. By monotypy and orig. desig.

Revisions: Compere, 1931. Calif. Univ. Pubs., Ent. 4: 233-245.—Compere, 1938. Bul. Ent. Res. 29: 321-323.

Place in Encyrtinae after *Chrysopophagus* Ashmead, p. 499.

\***elegans** Silvestri. Calif.; Australia, Africa. Host: *Saissetia oleae* (Bern.).

*Diversinervus elegans* Silvestri, 1915. Portici R. Scuola Super. di Agr., Lab. Zool. Gen. e Agr. Bol. 9: 304. ♂ ♀.

\***Cheiloneuroides bicristatus** Girault, 1915. Queensland Mus. Mem. 4: 96. ♀.

\***Diversinervus meridionalis** Compere, 1931. Univ. Calif. Pubs., Ent. 5: 237. ♂ ♀.

Biology: Compere, 1931. Calif. Univ. Pubs., Ent. 5: 241-245, 249.

### Genus ANABROLEPIS Timberlake, p. 500

*Anabrolepis* Timberlake, change 1920 to 1921. In ref., change 4: 131 to 4: 431.

### Genus ADELENCYRTUS Ashmead, p. 500

\***odonaspidis** Fullaway. Fla., La., Tex.; Mexico, Hawaii, Japan. Hosts: *Odonaspis* sp., ? *Antonina graminis* (Mask.).

*Adelencyrtus odonaspidis* Fullaway, 1913. Hawaii. Agr. Expt. Sta. Ann. Rpt. 1912, p. 26. ♀.

### Genus CHRYSOPLATYCERUS Ashmead, p. 500

\***howardii** Ashmead. Fla.; Mexico. Host: *Pseudococcus* sp.

*Chrysoplaticerus howardii* Ashmead, 1900. U. S. Natl. Mus. Proc. 22: 405. ♀.

**splendens** (Howard). Fla.

**Genus ANICETUS Howard, p. 500**

**annulatus** Timberlake. Host: *Coccus hesperidum* L.

**\*Genus TROPIDOPHRYNE Compere**

*Tropidophryne* Compere, 1931. Calif. Univ. Pubs., Ent. 5: 269.

Type: *Tropidophryne africana* Compere. By monotypy and orig. desig.

Revision: Compere, 1939. Bul. Ent. Res. 30: 13-14.

Place in Encyrtinae after *Coccobius* Ratzeburg, p. 501.

\***melvillei** Compere. Calif.; Africa. Hosts: *Pseudococcus citri* (Risso), *P. sp.*

*Tropidophryne melvillei* Compere, 1939. Bul. Ent. Res. 30: 15. ♀.

Taxonomy: Doutt and Smith, 1950. Canad. Ent. 82: 165. ♂ ♀ intersex.

**Genus EPANUSIA Girault, p. 504**

**xerophila** (Brues), n. comb. Transf. from *Anusia* Foerster, p. 477.

**Family EUPELMIDAE****Genus EUPELMUS Dalman, pp. 508-511**

**cleri** Ashmead. Hosts: delete "? *Odontaulacus abdominalis* Cress.," add ? *Aulacostethus rufitarsis* (Cress.).

**coccidis** Girault. Tex.

**cushmani** (Crawford). West Indies, Cent. and So. Amer., Hawaii. Host: *Anthonomus vestitus* Boh.

\**Cerambycobius townsendi* Crawford, 1912. U. S. Natl. Mus. Proc. 43: 166. ♂ ♀.

Taxonomy: Gahan, 1951. Canad. Ent. 83: 172.

**quercus** Girault. Change Girault to Ashmead.

**townsendi** (Crawford). Syn. of **cushmani** (Crawford).

**Genus ARACHNOPHAGA Ashmead, pp. 511-512**

**costalis** Gahan. Delete N. J.

**Genus ANASTATUS Motschulsky, pp. 513-514**

**blattidarum** Ferrière. Md. south to Fla., west to Ill. and Kans.

\***floridanus** Roth and Willis. Fla. Host: Oothecae of *Eurycotis floridana* (Walk.)

*Anastatus floridanus* Roth and Willis, 1954. Amer. Ent. Soc. Trans. 80: 31. ♂ ♀.

**reduvii** (Howard). Host: *Anisota* sp.

**Genus ZAISCHNOPSIS Ashmead, p. 514**

**schwarzii** (Ashmead).

Taxonomy: Gahan, 1951. Canad. Ent. 83: 172.

**Family EUCHARITIDAE****Genus PSEUDOMETAGEA Ashmead, p. 515**

**schwarzii** (Ashmead). Que., Mass., Ind., Nebr.

**Family PERILAMPIDAE****Genus EUPERILAMPUS Walker, p. 516**

**opacus** Ashmead. Transf. to *Heimbra* Cameron in Eurytomidae, p. 579.

**Genus PERILAMPUS Latreille, pp. 517-519***capitatus* Smulyan. Syn. of *tristis* Mayr.*carinifrons* Crawford. Wis.*tristis* Mayr. Ont., N. Y. to Va., west to Mich. and Ky.; Europe.*Perilampus capitatus* Smulyan (syn. by Steffan, 1952. Soc. Ent. de France Bul. 57: 69, 72).**Family AGAONTIDAE**

Change to Family AGAONIDAE.

**Genus BLASTOPHAGUS Gravenhorst, p. 519**Delete *Kradibia* Saunders, 1883 from syn.; valid, extralimital genus, *teste* E. F. Riek in litt.**Family TORYMIDAE****Genus TORYMUS Dalman, pp. 520-527***Callimome* Spinola, 1811. Suppressed by Internatl. Comn. Zool. Nomencl., 1936, not 1944.*Torymus* Dalman, 1820.Type: *Ichneumon bedeguaris* Linnaeus. Desig. by Internatl. Comn. Zool. Nomencl., 1936, not 1944.*capitis* (Huber). Wis. Correct spelling of *capite* of Catalog, p. 522.*dryophantae* (Ashmead). Correct spelling of *dryophanta* of Catalog, p. 522.*ferrugineipes* (Huber). Delete Fla.; add Calif.*\*festivus* Hobbs. Oreg. Host: *Dasyneura* sp. in seeds of *Thuja* and *Chamaecyparis*.*Torymus festivus* Hobbs, 1950. Pan-Pacific Ent. 26: 173. ♂ ♀.*tubularis* (Huber); correct spelling of *tubalaris* of Catalog, p. 526.*\*vesiculi* Moser. Ohio. Host: *Pachypsylla celtidis-vesiculum* Riley gall on *Celtis occidentalis*.*Torymus vesiculi* Moser, 1956. Kans. Ent. Soc. Jour. 29: 58. ♀ ♂.**Genus LIODONTOMERUS Gahan, p. 528***punctatus* (Ashmead). Transf. to Unplaced Species, p. 594.**Genus MONODONTOMERUS Westwood, pp. 528-529***dentipes* (Dalman). Wis.*montivagus* Ashmead. Utah. Hosts: *Ancistrocerus tuberculocephalus* (Sauss.), *Anthophora neomexicana* Kll., *Bombus morrisoni* Cress., *Dianthidium sayi* Kll., *Osmia texana* Cress.**Genus MICRODONTOMERUS Crawford, p. 531***anthonomi* (Crawford). S. Car.**Genus ROPTROCERUS Ratzeburg  
(= *Pachyceras* of Catalog, p. 549)**Insert after *Microdontomerus* Crawford, p. 531.**Genus MEGASTIGMUS Dalman, pp. 531-533***slossonae* Crosby.

Taxonomy: Gahan, 1951. Canad. Ent. 83: 172.

**Subfamily PODAGRIONINAE**

Transf. this subfamily from p. 583, and insert before Family Ormyridae, p. 533.

## Family ORMYRIDAE

### Genus *MEGORMYRUS* Cockerell

Syn. of *Ptinobius* Ashmead, p. 567.

## Family PTEROMALIDAE

### Genus *ASAPHES* Walker, p. 536

*americanus* Girault. Syn. of *fletcheri* (Crawford).

*fletcheri* (Crawford). N. B. and Maine south to N. C., west to Wis. and Iowa, Wash. Hosts: Aphidiine par. of aphids.

*Asaphes americana* Girault, 1914. N. syn.; types examined by B. D. Burks.

*vulgaris* Walker. Greenland.

### Genus *APTEROLELAPS* Ashmead, p. 537

*nigriceps* Ashmead. In ref., delete 1904, Carnegie Mus. Mem. 1: xi, 279; insert 1901. Fauna Hawaii, v. 1, p. 312. ♀.

### Genus *SPALANGIOLAELAPS* Girault, p. 537

*Spalangiolaelaps* Girault, change 1916 to 1917.

### Genus *LAMPROTATUS* Westwood, pp. 537-538

*auratus* (Ashmead). Wis.

### Genus *SELADERMA* Walker, p. 538

Delete; valid, extralimital genus; transf. *salicis* (Nees) to *Tridymus*, p. 546.

### Genus *SYNTOMOPUS* Walker, p. 538

*americanus* Ashmead. Wis.

### Genus *CHRYSOLAMPUS* Spinola, p. 539

*spinolae* (Ratzeburg). Syn. of *Rhopalicus tutela* (Walker), p. 550.

### Genus *PACHYNEURON* Walker, pp. 539-541

*allograptae* Ashmead. Next available name for *syrphi* (Ashmead), preocc. by *Pachyneuron syrphi* (Ratzeburg), 1848; *teste* C. Ferrière *in litt.*

*altiscutum* Howard. Wis.

*californicum* Girault. Wash.

*syrphi* (Ashmead). Preoccupied; *allograptae* Ashmead next available name.

### \*Genus *CORUNA* Walker

*Coruna* Walker, 1833. Ent. Mag. 1: 371, 379.

Type: *Coruna clavata* Walker. By monotypy.

\**Coryna* Foerster, 1856. Hym. Stud., v. 2, p. 59. Emend., preoccupied.

\**Pachycrepis* Foerster, 1856. Hym. Stud., v. 2, pp. 51, 54, 59. N. name, unnecessarily proposed.

Insert in Pachyneurini following *Pachyneuron*, p. 541.

\**clavata* Walker. N. B., Maine, Wash. Hosts: *Praon* spp. and *Aphidius* spp. par. on aphids.

*Coruna clavata* Walker, 1833. Ent. Mag. 1: 380. ♂ ♀.

\**Chrysolampus suspensus* Nees, 1834. Hym. Ichn. Aff. Monog., v. 2, p. 127. ♀.

\**Pteromalus aphidivorus* Foerster, 1841. Beitr. Monog. Pterom., p. 28. ♂.

\**Pteromalus segmentarius* Foerster, 1841. Beitr. Monog. Pterom., p. 28. ♂.



**Genus PACHYCREPOIDEUS Ashmead, p. 541**

*dubius* Ashmead. Syn. of *vindemmiae* (Rondani).

\**vindemmiae* (Rondani). Throughout U. S.; Cosmopolitan. Hosts: *Drosophila melanogaster* Meig.; other hosts in Catalog under *dubius* Ashmead.

*Encyrtus vindemmiae* Rondani, 1875. Comn. Agr. Parma Bol. 8: 84.

*Pachycrepoideus dubius* Ashmead, 1904.

Taxonomy: Delucchi, 1955. Ztschr. f. Angew. Ent. 38: 139-141.

**Genus HALTICOPTERA Spinola, pp. 541-542**

*aenea* (Walker). Wash.

*goodi* Crawford. Wash.

\**rosae* Burks. R. I., Wis., Minn. Host: *Rhagoletis basiola* (O. S.) in rose hips.

*Halticoptera rosae* Burks, 1955. Wash. Ent. Soc. Proc. 57: 81. ♂ ♀.

*stella* Girault.

*Megorismus poloni* Girault, 1917. In ref., change p. 27 to p. 97.

**\*Genus CRYPTOPRYMNA Foerster**

\**Prosodes* Walker, 1833. Ent. Mag. 1: 371, 374. Preocc.

Type: *Prosodes ater* Walker. By monotypy.

*Cryptoprymna* Foerster, 1856. Hym. Stud., v. 2, pp. 56, 59. N. name.

\**Cryptoprymnus* Thomson, 1878. Hym. Scand., v. 5, p. 22. Emend.

Insert in Sphegigasterini after *Trigonogastra* Ashmead, p. 542.

\**ater* (Walker). Greenland; Iceland, England.

*Prosodes ater* Walker, 1833. Ent. Mag. 1: 375. ♂.

Taxonomy: Bakkendorf, 1955. Ent. Meddel. 27: 146-147.

**Genus PSILOCERA Walker**

Transf. from Pteromalini, p. 556, and insert in Sphegigasterini after *Eurydinota* Foerster, p. 543.

**\*Genus SISYRIDIVORA Gahan**

*Sisyridivora* Gahan, 1951. Ent. Soc. Amer. Ann. 44: 100.

Type: *Sisyridivora cavigena* Gahan. By monotypy and orig. desig.

Insert in Sphegigasterini after *Panstenon* Walker, p. 543.

\**cavigena* Gahan. Ohio. Host: *Climacia areolaris* (Hagen).

*Sisyridivora cavigena* Gahan, 1951. Ent. Soc. Amer. Ann. 44: 102. ♂ ♀.

Biology: Brown, 1951. Ent. Soc. Amer. Ann. 44: 103-110.

**Genus TOMOCERA Howard, p. 543**

Preocc.; replace by *Moranila* Cameron, the next available synonym, *teste* C. Ferrière in litt.

**\*Genus MORANILA Cameron**

*Tomocera* Howard, 1881. Preocc.

*Moranila* Cameron, 1883. Ent. Soc. London Trans. 1883: 188.

Type: (*Moranila testaceiceps* Cameron) = *Tomocera californica* Howard. By monotypy.

*Dilophogaster* Howard, 1886. N. syn.

*Eunotomyia* Masi, 1917. N. syn.

*californica* (Howard), n. comb. Mexico; Hawaii, Micronesia, Australia; Europe. Hosts: *Ceroplastes* spp., *Saissetia coffeae* (Walkr.), *S. nigra* (Niet.), *S. hemispherica* (Targ.), *Antonina bambusae* Mask.

*Tomocera californica* Howard, 1881.

\**Moranila testaceiceps* Cameron, 1883. Ent. Soc. London Trans. 1883: 188.

Taxonomy: Timberlake, 1924. Hawaii. Ent. Soc. Proc. 5: 425.

**\*Genus TOMOCERODES Girault**

*Tomocerodes* Girault, 1916. Canad. Ent. 48: 246.

Type: *Tomocerodes americana* Girault. By monotypy.

Place in Eunotini after *Scutellista* Motschulsky, p. 544.

\**americana* Girault. Ariz.; Mexico. Host: *Lecaniodiaspis prosopidis* (Mask.).

*Tomocerodes americana* Girault, 1916. Canad. Ent. 48: 247.

**Genus TRIDYMUS Ratzeburg, p. 546**

*americensis* Girault. Host: Cecidomyiid stem gall on *Salix*.

*aphidis* Girault. In ref. change v. 54 to v. 53.

*salicis* (Nees). Transf. from *Seladerma*, p. 538.

**Genus CALLITULA Spinola, p. 548**

*cyrene* (Walker). Transf. to *Pseudomicromelus* Gahan and Fagan, *teste* C. Ferrière, *in litt.*, who has examined the type.

**Genus PSEUDOMICROMELUS Gahan and Fagan**

Transf. with included sp. from Pteromalini, p. 553, to Merisini following *Callitula* Spinola, p. 548.

*cyrene* (Walker), n. comb. Transf. from *Callitula* Spinola, p. 548.

**Genus METACOLUS Foerster, p. 549**

Transf. from Pteromalini, p. 549, to Rhaphitellini following *Rhaphitelus* Walker, p. 549 (*teste* Burks, 1953. Ent. Soc. Wash. Proc. 55: 44).

*bifasciatus* Girault. Syn. of *fasciatus* Girault.

*fasciatus* Girault. N. Dak., Colo., N. Mex., Ariz., Wash., Calif.

*Metacolus bifasciatus* Girault, 1917. Delete "?W. Va." in distribution. Taxonomy: Burks, 1953. Ent. Soc. Wash. Proc. 55: 44.

**Genus ROPTROCERUS Ratzeburg  
(= *Pachyceras* of Catalog, p. 549)**

Internatl. Comn. Zool. Nomencl. (Opinions and Declarations 15: 25-40, 1957) has suppressed *Pachyceras* Ratzeburg, 1844 to make the name available for a genus of Ammonoidea, *Pachyceras* Bayle, 1878. This involves reverting to *Roptrocercus* Ratzeburg, 1848, for the chalcid.

Transf. genus with component species to Torymidae after *Microdon-tomerus* Crawford, p. 531.

*rectus* Provancher. Syn. of *xylophagorum* (Ratzeburg).

*xylophagorum* (Ratzeburg).

*Roptrocercus rectus* Provancher, 1887. N. syn., *teste* O. Peck, *in litt.*, who examined the type.

**Genus TOMICOBIA Ashmead**

Transf. from Cleonymini, p. 566, to Pteromalini after *Dinotiscus* Ghesquière, p. 549.

*peratripes* (Girault), n. comb. Transf. from *Nasonia* Ashmead, p. 559, *teste* B. D. Burks, who examined the type.

**Genus RHOPALICUS Foerster, pp. 549-550**

*pulchripennis* (Crawford). Wis.

*tutela* (Walker). Maine, Wis.

\**Cleonymus maculifer* Foerster, 1841. Beitr. Monog. Pterom. p. 34. ♀.

*Pteromalus spinolae* Ratzeburg, 1844. Ichn. d. Forstins., v. 1, p. 189. ♂ ♀.

\**Pteromalus multicolor* Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 193. ♂.

\**Pteromalus aemulus* Ratzeburg, 1848. Ichn. d. Forstins., v. 2, p. 203.

\**Rhopalicus annellus* Thomson, 1878. Hym. Scand., v. 5, p. 42. ♂ ♀.  
Taxonomy: Kurdjumov, 1913. Ent. Obozr. 13: 10.

**Genus COELOPISTHIA Foerster, p. 551**

*smithii* Gahan. Syn. of *Schizonotus latus* (Walker).

**Genus DIBRACHOIDES Kurdjumov, p. 551**

\**druso* (Walker). Que., Nebr., Wyo.

*Pteromalus druso* Walker, 1839. Monog. Chalc., v. 1, p. 232. ♂.

*Pteromalus dynastes* Foerster, 1840.

Taxonomy: Graham, 1956. Ent. Monthly Mag. 92: 260.

**Genus DIGLOCHIS Foerster, p. 552**

*occidentalis* (Ashmead). Host: *Tabanus* sp.

**Genus TRITNEPTIS Girault, p. 552**

*hemerocampae* Girault. Wash.

*klugii* (Ratzeburg). Mich., Calif.

**Genus PSEUDOMICROMELUS Gahan and Fagan, p. 553**

Transf. with included species to *Merisini* after *Callitula* Spinola, p. 548,  
*teste* Burks, 1954, U. S. Dept. Agr. Tech. Bul. 1093, p. 4.

**Genus EUPTEROMALUS Kurdjumov, pp. 554-555**

*americanus* Gahan. Wis.

\**hemipterus* (Walker), n. comb. Del., Wis., Wash., Oreg.

*Pteromalus apicalis* Walker, 1836. Ent. Mag. 3: 196. ♀. Preocc.

*Pteromalus hemipterus* Walker, 1836. Ent. Mag. 3: 196. ♂ ♀.

*Pteromalus nidulans* Thomson, 1878.

Taxonomy: Graham, 1956. Ent. Monthly Mag. 92: 255.

**Genus LARIOPHAGUS Crawford, p. 555**

*dryorhizoxeni* (Ashmead).

Taxonomy: Gahan, 1951. Canad. Ent. 83: 175.

**Genus SCHIZONOTUS Ratzeburg, p. 555**

\**latus* (Walker). N. C. Host: *Chrysomela scripta* F.

*Pteromalus latus* Walker, 1835. Ent. Mag. 2: 481. ♀.

*Pteromalus sieboldi* Ratzeburg, 1852.

*Coelopisthia smithii* Gahan. N. syn., *teste* A. B. Gahan, who compared  
his type with European specimens of *sieboldi* det. by Ruschka.

Taxonomy: Graham, 1956. Ent. Monthly Mag. 92: 255.

**Genus PSILOCERA Walker, p. 556**

Transf. with component species to *Sphegigasterini*, after *Eurydinota*  
Foerster, p. 543, *teste* Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, p. 3.

**Genus SCYMNOPHAGUS Ashmead, p. 556**

*cryptognathae* (Girault). Syn. of *townsendi* Ashmead.

*mexicana* (Girault). Syn. of *townsendi* Ashmead.

*townsendi* Ashmead. Va., S. C., Ga., Wis., Wash.; Mexico, West Indies, Japan.

Hosts: *Azya trinitatis* Marsh., *Cryptognatha nodiceps* Marsh.,

*C. simillima* Sic., *Hyperaspis lateralis* Muls., *H. sp.*; *Pentilia*  
*insidiosa* Muls., *Scymnus* sp.

\**Xenocrepis mexicana* Girault, 1916. Ent. News 27: 227. ♂ ♀.

\**Tripolycystus cryptognathae* Girault, 1920. U. S. Natl. Mus. Proc. 58:  
211. ♂ ♀.

Taxonomy: Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, p. 13.



**Genus XENOCREPIS Foerster, p. 556**

\**Disema* Foerster, 1878. Naturh. Ver. Rheinlande Verh. 35: 54.

Type: *Disema pallipes* Foerster. By monotypy. Preocc.

\**Disemiscus* Ghesquière, 1946. Rev. Zool. Bot. Africaines 39: 369. N. name.

Delete *Caenocrepis* Thomson, 1878, a valid, extralimital genus (teste C. Ferrière in litt.).

**Genus NEOPOLYCELIS Hincks, pp. 556-557**

In citation of type of *Polycelis* Thomson, change *conspersus* to *conspersus*.

**Genus CECIDOSTIBA Thomson, p. 557**

*dendroctoni* Ashmead. Wis.

**Genus CATOLACCUS Thomson, pp. 557-558**

Revision: Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, pp. 4-8.

*aeneoviridis* (Girault). Que., Ont.; Bermuda. Host: *Apanteles flaviconche* Riley. In orig. cit. of *Arthrolytus aeneoviridis* Girault, change p. 351 to p. 372.

\**cynoideus* Burks. Maine and Mass. west to Mich. and Iowa. Host: Prob. sec. par. of Lepidoptera.

*Catolaccus cynoideus* Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, p. 7. ♂ ♀.

*fragariae* (Rohwer). Transf. to *Heterolaccus* Masi, p. 558.

*hunteri* (Crawford). Transf. to *Heterolaccus* Masi, p. 558.

*kansensis* (Girault). S. C., Wis., Miss., Iowa, La., Idaho. Host: Prob. a secondary par.

\**victoria* Burks. Tex., Idaho, Ariz. Host: Prob. sec. par. of Lepidoptera.

*Catolaccus victoria* Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, p. 6. ♂ ♀.

**\*Genus HETEROLACCUS Masi**

*Heterolaccus* Masi, 1937. Festschr. Prof. Dr. Embrik Strand, v. 3, pp. 369-371.

Type: *Heterolaccus mauritanus* Masi. By monotypy.

Revision: Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, pp. 8-13.

*fragariae* (Rohwer). Del. Transf. from *Catolaccus* Thomson, p. 558.

*hunteri* (Crawford). Del. south to Ga., west to Tex., Ariz., Calif.; Mexico, Guatemala; Hawaii. Hosts: *Acanthoscelides bisignatus* (Horn), *Anthonomus disjunctus* Lec., *A. nigrinus* Boh., *A. thurberiae* Pierce, *Rhynchaenus pallicornis* (Say). Transf. from *Catolaccus* Thomson, p. 558.

**Genus ZATROPIS Crawford, pp. 558-559**

Taxonomy: Burks, 1955. Ent. Soc. Wash. Proc. 57: 32.

*albiclavus* (Girault). N. Y., Md., Ohio. Host: gall of undet. midge. Transf. from *Eurydinoteloides* Girault, p. 566.

Taxonomy: Burks, 1955. Ent. Soc. Wash. Proc. 57: 37.

\**capitis* Burks. Utah, Nev., Oreg., Calif. Hosts: ?*Rhopalomyia* spp.

*Zatropis capitis* Burks, 1955. Ent. Soc. Wash. Proc. 57: 35. ♂ ♀.

\**chalcis* Burks. S. C., Fla. Hosts: *Anthonomus grandis* Boh., *A. thurberiae* Pierce, ? *Contarinia gossypii* Felt.

*Zatropis chalcis* Burks, 1955. Ent. Soc. Wash. Proc. 57: 34. ♂ ♀.

\**rosaeolis* Burks. Wis., Ill., Minn. Host: *Rhynchites bicolor* (F.).

*Zatropis rosaeolis* Burks, 1955. Ent. Soc. Wash. Proc. 57: 32. ♂ ♀.



**Genus PSEUDOCATOLACCUS Masi, p. 559**

Taxonomy: Burks, 1954. U. S. Dept. Agr. Tech. Bul. 1093, p. 14.

*americanus* Gahan. Tex., Idaho. Host: Undet. galls on *Bidens frondosa*.

**Genus NASONIA Ashmead, pp. 559-560**

*peratripes* Girault. Transf. to *Tomicobia* Ashmead, p. 549.

**Genus SYSTELLOGASTER Gahan, p. 564**

*ovivora* Gahan. Ont., Pa. Hosts: *Parcoblatta pennsylvanica* (DeG.), *P. sp.*

Biology: Edmunds, 1952. Ent. News 63: 143.

**Genus HEMITRICHUS Thomson, p. 565**

*rufipes* Thomson. Wash.

**Genus EURYDINOTELOIDES Girault, p. 566**

Delete; a valid, extralimital genus. Transf. *albiclava* Girault to *Zatropis* Crawford, p. 558.

**\*Genus HABRITYS Thomson**

*Habritys* Thomson, 1878. Hym. Scand., v. 5, p. 54 (*Habritus*, error, p. 50).

Type: *Pteromalus brevicornis* Ratzeburg. By monotypy.

Place in Metastenini after *Acaenacis* Girault, p. 566.

\**latrus* Wallace. N. Y., Wis. Host: *Ceratina dupla* Say.

*Habritys latrus* Wallace, 1954. Carnegie Mus. Ann. 33: 199. ♀.

**Genus TOMICOBIA Ashmead, p. 566**

Transf. with component species to Pteromalini after *Dinotiscus* Ghesquière, p. 549.

**Genus EPISTENIA Westwood, p. 567**

*polita* (Say). Tex.

Taxonomy: Gahan, 1951. Canad. Ent. 83: 174.

*regalis* Cockerell. In orig. cit., change Psyche v. 39 to 41.

**Genus PTINOBIUS Ashmead, p. 567**

*Megormyrus* Cockerell, 1926. N. syn., *teste* W. L. Brown, who compared specimens.

*amabilis* (Cockerell) n. comb. Probably a syn. of *magnificus* (Ashmead).

**Genus CHEIROPACHUS Westwood, pp. 567-568**

*colon* (Linnaeus).

*Sphex colon* Linnaeus, change 1858 to 1758.

**Family EURYTOMIDAE****Genus HARMOLITA Motschulsky, pp. 568-573**

\**Philachyra* Walker, 1871. Notes on Chalcid., pt. 1, p. 7. N. syn. (*teste* B. D. Burks).

Type: *Philachyra ips* Walker. By monotypy.

*bromi* (Howard). Transf. to *Eurytoma* Illiger, p. 575.

*phyllostachitis* Gahan. Transf. to *Gahaniola* Erdös, p. 573.

**\*Genus GAHANIOLA Erdös**

*Gahaniola* Erdös, 1952. Folia Ent. Hung. (Rovartani Közlemenyek), n. s., 5: 117.

Type: *Harmolita phyllostachitis* Gahan. Orig. desig.

Insert in Eurytomidae after *Harmolita* Motschulsky, p. 573.

*phyllostachitis* (Gahan). Transf. from *Harmolita* Motschulsky, p. 572.

**Genus MACRORILEYA Ashmead, p. 573**

*oecanthi* change (Riley) to (Ashmead).

**Genus PRODECATOMA Ashmead, p. 574**

*cooki* (Howard).

Taxonomy: Gahan, 1951. Canad. Ent. 83: 174.

*maga* (Girault). Transf. from *Eurytoma* Illiger, p. 577.

Taxonomy: Bugbee, 1956. Ent. Soc. Amer. Ann. 49: 505.

**Genus CHRYSSEIDA Spinola, p. 574**

Revision: Burks, 1956. Brooklyn Ent. Soc. Bul. 51: 109.

**\*Genus TENUIPETIOLUS Bugbee**

*Tenuipetiolus* Bugbee, 1951. Kans. Ent. Soc. Jour. 24: 37.

Type: *Eurytoma albipes* Ashmead. Orig. desig.

Enter in Eurytomidae after *Chryseida* Spinola, p. 574.

*albipes* (Ashmead). Tex., Kans. Hosts: Cecidomyiid galls on *Helianthus*, *Xanthium*, and *Ambrosia*. Transf. from *Eurytoma* Illiger, p. 575.

*medicaginis* (Gahan). Host: Dipteron in pods of *Mentzelia*. Transf. from *Eurytoma* Illiger, p. 577.

\**mentha* Bugbee. N. Mex. Host: Dipteron in seed pods of *Poliomintha incana*.  
*Tenuipetiolus mentha* Bugbee, 1951. Kans. Ent. Soc. Jour. 24: 38,  
44. ♂ ♀.

\**rubra* Bugbee. N. Y. south to Va., west to Tenn. and Ariz. Hosts: *Diplolepis rosae* (L.), *Diastrophus nebulosus* (O. S.), *D. cuscuteaeformis* O. S., *D. sp.*

*Tenuipetiolus rubra* Bugbee, 1951. Kans. Ent. Soc. Jour. 24: 39. ♂ ♀.

**Genus EURYTOMA Illiger, pp. 574-579**

*Tetramesa* Walker, 1848. Delete from synonymy; valid, extralimital genus.

*abnormis* (Ashmead). Iowa.

\**acuta absona* Bugbee. Colo. Host: *Diplolepis* sp.

*Eurytoma acuta absona* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 230.  
♂ ♀.

*acuta acuta* Bugbee. Utah. Hosts: *Diplolepis arefacta* (Gillette), *D. tuberculator* complex.

*Eurytoma acuta acuta* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 225.  
♂ ♀.

\**acuta gemina* Bugbee. Ariz. Hosts: Prob. *Diplolepis tuberculator* complex.  
*Eurytoma acuta gemina* Bugbee, 1951. Ent. Soc. Amer. Ann. 44:  
232. ♂ ♀.

\**acuta intermedia* Bugbee. N. Dak. Host: smooth rose gall.

*Eurytoma acuta intermedia* Bugbee, 1951. Ent. Soc. Amer. Ann. 44:  
228. ♂ ♀.

\**acuta ramosa* Bugbee. Mich., Minn., Man. Hosts: *Diplolepis tuberculator* complex.

*Eurytoma acuta ramosa* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 229.  
♂ ♀.

*albipes* (Ashmead). Transf. to *Tenuipetiolus* Bugbee, p. 574.

*bromi* (Howard). Transf. from *Harmolita* Motschulsky, p. 569.

Taxonomy: Bugbee, 1956. Ent. Soc. Amer. Ann. 49: 505.

- \**calcareo calcareo* Bugbee. Utah. Hosts: *Diplolepis variabilis* (Bass.), *D. bicolor* (Harr.).  
*Eurytoma calcareo calcareo* Bugbee. Ent. Soc. Amer. Ann. 44: 242.  
 ♂ ♀.
- \**calcareo ignobilis* Bugbee. Nebr. Host: *Diplolepis bicolor* (Harr.).  
*Eurytoma calcareo ignobilis* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 243. ♂ ♀.
- \**calcareo infima* Bugbee. Ill. Host: *Diplolepis bicolor* (Harr.).  
*Eurytoma calcareo infima* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 246. ♂ ♀.
- \**calcareo lucida* Bugbee. Ill. Host: *Diplolepis bicolor* (Harr.).  
*Eurytoma calcareo lucida* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 245. ♂ ♀.
- \**calcareo mimica* Bugbee. Maine, Mass. Host: *Diplolepis bicolor* (Harr.).  
*Eurytoma calcareo mimica* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 247. ♂ ♀.
- \**calcareo singularis* Bugbee. Mass. Host: *Diplolepis nebulosus* (Bass.).  
*Eurytoma calcareo singularis* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 248. ♂ ♀.
- \**discordans* Bugbee. Maine, Mass., Va., Ont., Mich., Ind., Wis. Host: *Diplolepis variabilis* (Bass.).  
*Eurytoma discordans* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 218, 220. ♂ ♀.
- \**flavicrurensa* Bugbee. Oreg. Host: *Diplolepis polita* (Ashm.).  
*Eurytoma flavicrurensa* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 258.  
 ♀.
- \**imminuta* Bugbee. Utah, Nev. Host: *Diplolepis variabilis* complex.  
*Eurytoma imminuta* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 259.  
 ♂ ♀.
- incerta incerta* Fullaway, changed status. Oreg. Hosts: *Diplolepis neglecta* (Gill.), *D. polita* (Ashm.).  
*Eurytoma incerta* Fullaway. Reduced to subsp. rank (*teste* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 237).
- \**incerta varia* Bugbee. Calif. Host: *Diplolepis tuberculator descansonis* K. and A.  
*Eurytoma incerta varia* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 237.  
 ♀.
- \**iniquus* Bugbee. Colo. Host: *Diplolepis neglecta* (Gill.).  
*Eurytoma iniquus* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 253. ♂ ♀.
- \**longavena* Bugbee. B. C. Host: *Diplolepis bicolor* (Harr.).  
*Eurytoma longavena* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 249.  
 ♂ ♀.
- maga* Girault. Delete "?Nearctic"; Calif. Host: Gall of *Andricus chrysolepidicola* (Ashm.) on *Quercus dumosa* and *Q. douglasii*.  
 Transf. to *Prodecatoma* Ashmead, p. 574.
- medicaginis* (Gahan). Transf. to *Tenuipetiolus* Bugbee, p. 574.
- obtusilobae* Ashmead. Mass. south to Fla., west to Man. and Oreg. Host: *Diplolepis radicum* complex.
- obtusiventris* Gahan. Delete "♂" from reference to orig. descr.
- polygraphi* (Ashmead). Transf. to *Ipideurytoma* Bouček and Nowicky, p. 579.
- sculpta* (Ashmead). Transf. to *Bruchophagus* Ashmead, p. 583.
- \**spina* Bugbee. Oreg. Host: *Diplolepis tuberculator versicolor* K. and A.  
*Eurytoma spina* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 250. ♂ ♀.



\**spongiosa spongiosa* Bugbee, n. status. Mass. south to Va., west to Sask. and Utah. Hosts: *Diplolepis rosae* (L.), *D. dichlocerus* (Harr.), *D. tuberculator* complex.

*Eurytoma spongiosa* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 254.  
♂ ♀.

\**spongiosa curvavena* Bugbee. Minn. Host: Prob. *Diplolepis multispinosa* (Gill.)

*Eurytoma spongiosa curvavena* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 257. ♂ ♀.

*stigma* Ashmead. In ref. change Psyche 3: to 7:.

\**terrea* Bugbee. Oreg. Host: *Diplolepis polita* (Ashm.)

*Eurytoma terrea* Bugbee, 1951. Ent. Soc. Amer. Ann. 44: 238. ♂ ♀.

#### \*Genus IPIDEURYTOMA Bouček and Nowicky

*Ipideurytoma* Bouček and Nowicky, 1954. Ent. Tidskr. 75 (2-4): 267.

Type: *Ipideurytoma spessirtsevi* Bouček and Nowicky. By monotypy and orig. desig.

Insert in Eurytomidae after *Eurytoma* Illiger, p. 579.

*polygraphi* (Ashmead). Transf. from *Eurytoma* Illiger, p. 578.

Taxonomy: Bugbee, 1956. Ent. Soc. Amer. Ann. 49: 506.

#### \*Genus HEIMBRA Cameron

*Heimbra* Cameron, 1910. Amer. Ent. Soc. Transf. 35: 433.

Type: *Heimbra acuticollis* Cameron. By monotypy.

Insert in Eurytomidae before *Eudecatoma* Ashmead, p. 579.

*opacas* (Ashmead), n. comb. Transf. from *Euperilampus* Walker, p. 516.

#### Genus EUDECATOMA Ashmead, pp. 579-582

*flammeiventris* of Catalog, p. 580; misspelling of *flammeiventris* (Girault).

*flammeiventris* (Girault); correct spelling of *flammeiventris* of Catalog, p. 580.

#### Genus SYSTOLE Walker, p. 582

\**albipennis* Walker. Ont., Europe.

*Systole albipennis* Walker, 1832. Ent. Mag. 1: 22. ♀.

\**geniculata* Foerster. Colo., Calif.; Europe; Asia. Hosts: Seeds of Fennel, Anise, and other umbellifers.

*Systole geniculata* Foerster, 1861. Prog. Realsch. Aachen, p. xxxiii.

#### Genus BRUCHOPHAGUS Ashmead, pp. 582-583

\**caraganae* (Nikolskaja). Man., N. Dak., Sask.; Russia. Hosts: Seeds of *Caragana* spp.

*Eurytoma caraganae* Nikolskaja, 1952. Akad. Nauk., Chalc. Fauna U.S.S.R., pp. 63, 176, 187. ♂ ♀.

Taxonomy: Bugbee, 1956. Ent. Soc. Amer. Ann. 49: 505.

Biology: Znoiko, 1952. Ent. Obozr. 32: 49-55.—Hedlin, 1956. Canad. Ent. 88: 622-625.

*sculpta* (Ashmead). Transf. from *Eurytoma* Illiger, p. 578.

Taxonomy: Bugbee, 1956. Ent. Soc. Amer. Ann. 49: 505.

### Family PODAGRIONIDAE

Delete family heading.

### Subfamily PODAGRIONINAE

Transf. to Torymidae after Megastigmidae, p. 533.



## Subfamily CHALCEDECTINAE

Change to Family chalcidectidae, p. 584.

## Genus CHALCEDECTUS Walker, p. 584

\**Chalcedectes* Ashmead, 1899. Ent. Soc. Wash. Proc. 4: 201. Emend.

## Family CHALCIDIDAE

## Subfamily HALTICHELLINAE

Generic Revision: Steffan, 1951-1953. Feuille des Nat., n. s., 6: 1-7, 81-85; 8: 7-12, 33-36.

Taxonomy: Kerrich and Menon, 1949. Ent. Monthly Mag. 85: 207-211.

## Genus HALTICHELLA Spinola, p. 584

*perpulchra* of Catalog, p. 584; misspelling of *perpulera* (Walsh).

*perpulera* (Walsh); correct spelling of *perpulchra* of Catalog, p. 584.

## Genus STOMATOCERAS Kirby, p. 585

*Irichohaltichella*, change Girault, 1912 to Cameron, 1912. Delete from syn.; valid extralimital genus (*teste* J. R. Steffan, *in lit.*).

*unipunctatipennis unipunctatipennis* Girault. N. Y., Fla.

## Genus ACANTHOCHALCIS Cameron, p. 585

*nigricans* Cameron. Tex., Calif.

*unispinosa* Girault. Calif.

## Genus BRACHYMERIA Westwood, pp. 586-588

*coloradensis* (Cresson). Idaho, Calif.; Europe, Asia.

*columbiana* (Howard). Fla.

*compsilurae* (Crawford). N. J., Pa., Mich., N. Mex., Oreg.

\**discreta* Gahan. Tex., Ariz.; Mexico.

*Brachymeria discreta* Gahan, 1942. U. S. Natl. Mus. Proc. 92: 43. ♀ ♂.

\**discretoides* Gahan. Tex., Ariz.; Mexico.

*Brachymeria discretoides* Gahan, 1942. U. S. Natl. Mus. Proc. 92: 44. ♀ ♂.

*hammari* (Crawford). Md., Ga., Fla., Ind., Kans., Calif.

*tegularis* (Cresson). Tenn., Calif.

## Genus DIRHINUS Dalman, p. 588

*paoli* Burks; correct spelling of *paolii* of Catalog, p. 588. S.C., Kans., Tex.

*paolii* of Catalog, p. 588; misspelling of *paoli* Burks.

## Genus CHALCIS Fabricius, pp. 588-589

*canadensis* (Cresson). Wis.

*divisa* (Walker). Tex.

*flebilis* (Cresson). Fla., Mich.

*megalomis* Burks. Mich., Iowa, Wyo.

*neptis* Burks. Idaho, Calif.

## Genus SPILOCHALCIS Thomson, pp. 589-592

*arcana* (Cresson). Ala., Tex., Mont., Ariz.

*Smicra enausta* of Catalog change to *Smicra encausta* Cresson,

*dema* Burks. Ariz.

*eubule* (Cresson). Fla. Hosts: *Phoebis sennae eubule* (L.), *Eurema nicippe* Cram.

*melana* Burks. N. Y., Va., Mo. Host: *Pachyschelus laevigatus* Say.

## Family LEUCOSPIDAE

### Genus LEUCOSPIS Fabricius, p. 593

*Micrapion* Kriechbaumer, 1894. Delete from syn.; valid, extralimital genus (*teste* Steffan, 1948. Soc. Ent. de France Bul. 53: 81-88).

#### Unplaced Genera, p. 593

*Hoplocrepis* Ashmead, 1890. Transf. to Entedontinae following *Chrysocharomyia* Girault, p. 465.

#### Unplaced Species, p. 594

\**Lophocomodia americana* Ashmead, 1888. Kans. Agr. Expt. Sta. Bul., appendix p. vi. ♂.

*Entedon antiopae* Packard, 1881. N. Eng.

*Stenomesus? aphidicola* Ashmead, 1880. Fla.

*Caccophagus* (!) *brunneus* Provancher, 1887. Que.

*Camptotera* (!) *clavata* Provancher, 1888. Que.

*Entedon coquillettii* Riley, 1889. Calif.

*Stinoplus cyaneus* Ashmead, 1894. W. Va.

*Semiotellus fasciatus* Provancher, 1881. Canada.

*Trichogramma flavus* Ashmead, 1880. Fla.

*Encyrtus Gastron* Walker, 1847. Fla.

*Eulophus Gobryas* Walker, 1847. Fla.

*Entedon Imbrasus* Walker, 1947. Fla.

*Leucospis integra* Haldeman, 1844. Pa.

*Perilampus laevis* Provancher, 1887. Ont.

*Semiotellus minimus* Provancher, 1881. Canada.

*Eulophus Minyas* Walker, 1847. Fla.

*Cricellius megachilis* Ashmead, 1897. Calif.

*Pteromalus nigricornis* Provancher, 1881. Canada.

*Semiotellus oblongus* Provancher, 1881. Canada.

*Eurytoma orbiculata* Say, 1836. Ind.

*Lochites punctata* Ashmead, 1887. Transf. from *Liodontomerus* Gahan, p. 528.

*Pteratomus Putnamii* Packard, 1864. Vt.

*Eulophus ramosus* Provancher, 1881. Canada.

*Encyrtus Reate* Walker, 1847. Fla.

*Trigonoderus varipes* Viereck, 1903. N. Mex.

## Superfamily CYNIPOIDEA

Monograph: Weld, 1952. Cynipoidea (Hym.) 1905-1950, 351 pp. Ann Arbor, Mich. (Privately printed).

## Family LIOPTERIDAE

Genus KIEFFERIELLA Ashmead, p. 595

\**acmaeodera* Weld. Idaho.*Kiefferiella acmaeodera* Weld, 1956. Ent. Soc. Wash. Proc. 58: 291. ♀.

## Family FIGITIDAE

Genus MELANIPS Walker, pp. 598-599

In orig. cit. of *Amblynotus* Hartig, change p. 449 to p. 419.\**opacus* (Hartig). Calif.; Europe.*Scytodes opacus* Hartig, 1840. Germar Ztschr. f. Ent. 2: 202. ♂ ♀.

Genus FIGITES Latreille, pp. 599-600

*impatiens* Say. In orig. cit., change p. 258 to p. 268.

## Family CYNIPIDAE

Genus HEXACOLA Foerster, pp. 601-602

*californica* (Kieffer). Delete entire entry.

\*Genus GANASPIDIUM Weld

*Ganaspidium* Weld, 1955. Ent. Soc. Wash. Proc. 57: 274.Type: *Ganaspidium pusillae* Weld. By monotypy.Place in Eucoilinae after *Trybliographa* Foerster, p. 604.\**pusillae* Weld. Texas. Host: *Liriomyza pusilla* (Meig.).*Ganaspidium pusillae* Weld, 1955. Ent. Soc. Wash. Proc. 57: 274. ♂ ♀.

Genus CHARIPS Marshall, p. 607

\**victrix* (Westwood). Greenland; Europe.*Allotria victrix* Westwood, 1833. Mag. Nat. Hist. 6: 495.

Genus SAPHONECRUS Dalla Torre and Kieffer, p. 610

*brevicornis* (Ashmead). Transf. from *Synergus* Hartig, p. 610.

Taxonomy: Weld, 1952. U. S. Natl. Mus. Proc. 102: 315.

Genus SYNERGUS Hartig, pp. 610-613

*agrifoliae* Ashmead.*Synergus maculatus* Fullaway. (Syn. by Weld, 1952. U. S. Natl. Mus. Proc. 102: 337).*Synergus obscurus* McCracken and Egbert. (Syn. by Weld, *loc. cit. supra.*)*brevicornis* Ashmead. Transf. to *Saphonecrus* Dalla Torre and Kieffer, p. 610.*maculatus* Fullaway. Syn. of *agrifoliae* Ashmead.*obscurus* McCracken and Egbert. Syn. of *agrifoliae* Ashmead.

Genus SYNOPHROMORPHA Ashmead, p. 613

\**rubi* Weld. Ill. Reared from galls of *Diastrophus cuscuteaeformis* O. S.*Synophromorpha rubi* Weld, 1952. U. S. Natl. Mus. Proc. 102: 317.  
♀ ♂.*sylvestris* (Osten Sacken). Reared from galls of *Diplolepis ignota* (O. S.)

Taxonomy: Weld, 1952. U. S. Natl. Mus. Proc. 102: 316.

\**terricola* Weld. D. C., Va. Reared from galls of *Diastrophus radicum* Bass.  
and *D. bassettii* Beut.*Synophromorpha terricola* Weld, 1952. U. S. Natl. Mus. Proc. 102: 316.  
♀ ♂.

**Genus ANTISTROPHUS Walsh, pp. 615-616**

**pisum** Ashmead. Change *Asclepiadiphila stephanotidis* Ashmead to *Asclepiadiphila*.

**Genus DIPLOLEPIS Geoffroy, p. 617**

Delete *Diplolepis* Geoffroy, 1762. Hist. Abrégé des Insectes. This publication not available for nomenclatorial purposes, *teste* Opinion 228, Internatl. Conn. Zool. Nomencl., April 1954.

**\*Genus DIPLOLEPIS Fourcroy**

*Diplolepis* Fourcroy, 1785. Ent. Parisiensis, pt. 2, p. 391.

Type: *Cynips rosae* L. Desig. by Karsch, 1880.

Replaces *Diplolepis* Geoffroy, pp. 617-620.

\***lens** Weld. Oreg., Wash., Calif. Gall on *Rosa nutkana*.

*Diplolepis lens* Weld, 1952. U. S. Natl. Mus. Proc. 102: 320. ♀ ♂.

**occidentalis** (Beutenmueller). Syn. of **polita** (Ashmead).

**polita** (Ashmead). Calif.

*Rhodites occidentalis* Beutenmueller. (Syn. by Weld, 1952. U. S. Natl. Mus. Proc. 102: 321).

\***terrigena** Weld. Calif. Gall on *Rosa* sp.

*Diplolepis terrigena* Weld, 1952. U. S. Natl. Mus. Proc. 102: 320. ♀ ♂ 0.

**Genus NEUROTERUS Hartig, pp. 620-624**

\***tantulus** Weld. Md. Gall on *Quercus alba*.

*Neuroterus tantulus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 321. ♀ 0.

**vernus** Gillette. Change to *verna* Gillette.

**Genus TRICHOTERAS Ashmead, p. 625**

\***perfulvum** Weld. Calif. Gall on *Quercus chrysolepis*.

*Trichoterus perfulvum* Weld, 1952. U. S. Natl. Mus. Proc. 102: 322. ♀ 0.

\***rotundula** Weld. Calif. Gall on *Quercus chrysolepis*.

*Trichoterus rotundula* Weld, 1952. U. S. Natl. Mus. Proc. 102: 323. ♀ 0.

**vaccinifoliae** (Ashmead). Change to *vacciniifoliae* (Ashmead), and delete (!) in ref.

**Genus XANTHOTERAS Ashmead, pp. 625-626****Agamic Generation, pp. 625-626**

**forticorne** (Osten Sacken). In cit. of orig. descr., change p. 498 to p. 489.

**\*Genus PARACRASPIIS Weld**

*Paracraspis* Weld, 1952. U. S. Natl. Mus. Proc. 102: 324.

Type: *Callirhytis guadaloupensis* Fullaway. Orig. desig.

Place in Cynipinae after *Xanthoterus* Ashmead, p. 626.

**guadaloupensis** (Fullaway). Transf. from *Acraspis* Mayr, p. 627.

**insolens** (Weld). Transf. from *Acraspis* Mayr, p. 627.

**patelloides** (Weld). Transf. from *Acraspis* Mayr, p. 627.

**Genus ACRASPIS Mayr, pp. 626-628**

**guadaloupensis** (Fullaway). Transf. to *Paracraspis* Weld, p. 628.

**insolens** Weld. Transf. to *Paracraspis* Weld, p. 628.

**longicornis** (Ashmead). Change (Ashmead) to (Bassett).

*Dryophanta longicornis* Ashmead, change Ashmead to Bassett.



*patelloides* Weld. Transf. to *Paracraspis* Weld, p. 628.

**Genus LIODORA Foerster, p. 629**

*apiaria* Weld. Change to *apiarium* Weld.

\**comata* Weld. Va. Gall on *Quercus alba*.

*Liodora comata* Weld, 1952. U. S. Natl. Mus. Proc. 102: 325. ♀ ♂ 0.

**Genus ADLERIA Rohwer and Fagan, pp. 629-630**

Taxonomy: Niblett, 1955. So. London Ent. and Nat. Hist. Soc. Proc. and Trans. 1953-54: 144. (Possible syn. of *Adleria* with *Andricus*.)

*vacciniiformis* (Beutenmueller). Change to *vacciniiformis* (Beutenmueller).

*Cynips vacciniiformis*, change to *vacciniiformis* Beutenmueller, 1913.

**Genus AMPHIBOLIPS Reinhard, pp. 630-631**

\**globus* Weld. Va. Gall on *Quercus palustris*.

*Amphibolips globus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 325. ♀ ♂ 0 and agamic ♀.

**Genus ANDRICUS Hartig, pp. 631-637**

\**albicomus* Weld. Oreg. Gall on *Quercus garryana*.

*Andricus albicomus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 328. ♀ 0.

*brunneus* Fullaway.

Taxonomy: Weld, 1952. U. S. Natl. Mus. Proc. 102: 327 (Descr. of gall).

\**chico* Weld. Calif. Gall on *Quercus lobata*.

*Andricus chico* Weld, 1952. U. S. Natl. Mus. Proc. 102: 328. ♀ 0.

*chrysolepidicola* (Ashmead).

*Cynips kelloggii*, change to *kelloggi* Fullaway, 1911.

\**crenatus* Weld. Calif. Gall on *Quercus dumosa* and *Q. douglasii*.

*Andricus crenatus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 330. ♀ 0.

\**multicostatus* Weld. Ariz. Gall on *Quercus subturbinella*.

*Andricus multicostatus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 331. ♀ 0.

*pilula* Bassett. Gall on *Quercus gambelii*.

Taxonomy: Weld, 1952. U. S. Natl. Mus. Proc. 102: 332. (Descr. of ♂).

\**pilularis* Weld. Ariz. Gall on *Quercus subturbinella*.

*Andricus pilularis* Weld, 1952. U. S. Natl. Mus. Proc. 102: 333. ♀ ♂ 0.

\**prescottii* Weld. Ariz. Gall on *Quercus subturbinella*.

*Andricus prescottii* Weld, 1952. U. S. Natl. Mus. Proc. 102: 331. ♀ 0.

\**projectus* Weld. Oreg. Gall on *Quercus chrysolepis*.

*Andricus projectus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 329. ♀ 0.

**Genus ANTRON Kinsey, pp. 640-641**

\**pileus* Weld. Ariz. Gall on *Quercus subturbinella*.

*Antron pileus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 333. ♀ ♂ 0.

**Genus ZOPHEROTERAS Ashmead, pp. 642-643**

\**guttatum* Weld. Va. Gall on *Quercus palustris*.

*Zopheroteras guttatum* Weld, 1952. U. S. Natl. Mus. Proc. 102: 334. ♀ 0.

**Genus BASSETTIA Ashmead, pp. 643-644**

*corrugis* (Bassett). Syn. of *floridana* Ashmead.

*floridana* Ashmead. Conn. Ovipositing in *Quercus prinoides*.

*Dryophanta corrugis* Bassett. (Syn. by Weld, 1952. U. S. Natl. Mus. Proc. 102: 336.)

**Genus EUMAYRIA Ashmead, p. 644**

\**invisa* Weld. Fla. Gall on *Quercus myrtifolia*.

*Eumayria invisus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 335. ♀ 0.

**Genus HOLOCYNIPS Kieffer, p. 645**

*badia* (Bassett). Change *Q. primus* to *Q. prinus* in host list.

**Genus DRYOCOSMUS Giraud, pp. 645-646**

\**grumatus* Weld. Calif. Gall on *Quercus wislizeni*.

*Dryocosmus grumatus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 336. ♀ 0.

\**minusculus* Weld. Calif. Gall on *Quercus agrifolia*.

*Dryocosmus minusculus* Weld, 1952. U. S. Natl. Mus. Proc. 102: 337.  
♀ 0.

**Genus CALLIRHYTIS Foerster, pp. 647-653**

\**cistella* Weld. Ariz. Gall on *Quercus emoryi*.

*Callirhytis cistella* Weld, 1952. U. S. Natl. Mus. Proc. 102: 338. ♀ 0.

*corrugis* (Bassett).

Taxonomy: Weld, 1952. U. S. Natl. Mus. Proc. 102: 338 (descr. of gall).

\**furva* Weld. Va., Mo. Gall on *Quercus palustris*.

*Callirhytis furva* Weld, 1952. U. S. Natl. Mus. Proc. 102: 341. ♀ 0.

\**hopkinsi* Weld. D. C., Va., W. Va. Gall on *Quercus imbricaria*.

*Callirhytis hopkinsi* Weld, 1952. U. S. Natl. Mus. Proc. 102: 339. ♀ 0.

*modesta* (Osten Sacken).

Taxonomy: Weld, 1952. U. S. Natl. Mus. Proc. 102: 338.

\**oblata* Weld. Va. Gall on *Quercus coccinea* and *Q. falcata*.

*Callirhytis oblata* Weld, 1952. U. S. Natl. Mus. Proc. 102: 340. ♀ 0.

\**subcostata* Weld. Va. Gall on *Quercus stellata*.

*Callirhytis subcostata* Weld, 1952. U. S. Natl. Mus. Proc. 102: 341. ♀ 0.

Non-valid Published Names in Cynipoidea, pp. 653-654

\**nigrosus* (Kleidotoma) Ashmead, 1906. In Slosson, Ent. News 17: 9. ♀.

*quercus-mellaria* (Cynips) Riley, 1880. In ref., change p. 289 to p. 298.

**Superfamily PROCTOTRUPOIDEA****Family EVANIIDAE****Genus HYPTIA Illiger, pp. 656-657**

*harpoides* Bradley. Hosts: *Parcoblatta uhleriana* (Sauss.), *P. pennsylvanica* (DeG.).

**Family GASTERUPTIIDAE****Genus AULACOSTETHUS Philippi, pp. 657-659**

Preocc. Replaced by *Pristaulacus* Kieffer.

**Genus PRISTAULACUS Kieffer**

(= *Aulacostethus* Philippi of Catalog, pp. 657-659)

\**Aulacomastus* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 333. Unnecessarily proposed to replace *Aulacostethus* Philippi.

**Genus AULACUS Jurine, pp. 659-660**

\**aneurus* Walkley. N. Mex. (Lincoln Natl. Forest). Host: *Dendroctonus* sp.  
*Aulacus aneurus* Walkley, 1952. Ent. Soc. Wash. Proc. 54: 185. ♀ ♂.

*pallipes* Cresson. Va. Host: *Xiphydria mellipes* Harr.

**Genus GASTERUPTION Latreille, p. 660**

*Gasteruption* Latreille. Change type citation to *Ichneumon jaculator* Linnaeus. Desig. by Westwood, 1839 (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 354-355).

*Foenus* Fabricius. Change type citation to *Ichneumon jaculator* Linnaeus. Desig. by Westwood, 1839 (*teste* Muesebeck and Walkley, 1956, *op. cit. supra*, p. 354).

**Family PROCTOTRUPIDAE****Genus PROCTOTRUPES Latreille, pp. 663-664**

*caudatus* Say. N. Y., Pa., Md., D. C.

\**Proctotrypes crenulatus* Patton, 1879. Canad. Ent. 11: 64. ♀.

\**crenulatus* Patton. Syn. of *caudatus* Say.

*florissantensis* Rohwer. Wyo., Wash.

*pallidus* (Say). Idaho.

**Genus PHAENOSERPUS Kieffer, p. 664**

*nevadensis* (Kieffer). Place before *nigripes* (Ashmead).

**Genus CRYPTOSERPUS Kieffer, pp. 664-665**

After literature citation add "No species," and in type designation change Kieffer, 1914, to Kieffer, 1908.

**Family CERAPHRONIDAE****Genus CERAPHRON Jurine, pp. 666-668**

\**Megaspilidea* Ashmead, 1888. Canad. Ent. 20: 48, 49.

Type: *Megaspilidea minuta* Ashmead. By monotypy.

**Genus TRICHOSTERESIS Foerster, p. 671**

*Thliboneura* Thomson. Change 1859 (1858) to 1858.

**Genus MEGASPILUS Westwood, pp. 671-672**

*Megaspilodes* Ashmead. After Type, change "Present desig." to "By monotypy."

**Family DIAPRIIDAE****Genus SOLENOPSIA Wasmann, p. 672**

No Nearctic species of *Solenopsia* Wasmann known (*teste* Wing, 1951. Roy. Ent. Soc. London Trans. 102: 195).

**\*Genus BRUESOPRIA Wing**

(= *Solenopsia* Wasmann of Catalog, p. 672)

*Bruesopria* Wing, 1951. Roy. Ent. Soc. London Trans. 102: 195.

Type: *Bruesopria seeversi* Wing. Orig. desig.

Place in Diapriinae after *Solenopsia* Wasmann, p. 672.

*americana* (Brues). Transf. from *Solenopsia* Wasmann (*teste* Wing, 1951. Roy. Ent. Soc. London Trans. 102: 197).

\**seeveri* Wing. N. C. (Wake Co.). With *Solenopsis molesta* (Say).

*Bruesopria seeveri* Wing, 1951. Roy. Ent. Soc. London Trans. 102: 195. ♀.

**\*Genus POLYPEZA Foerster**

(= *Propantolyta* Kieffer, p. 673)

*Polypeza* Foerster, 1856. Hym. Stud., v. 2, pp. 123, 127.

Type: *Polypeza pergandei* Ashmead, 1893. First included species.



Replaces *Propantolyta* Kieffer, p. 673, an isogenotypic syn. (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 387, 390).

**Genus ENTOMACIS Foerster, p. 673**

(= *Hemilexis* Foerster, p. 674)

*Hemilexis* Foerster. N. syn. Change type citation to *Hemilexis (mellipetiola!)* = *mellipetiolata* Ashmead. First included species (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 358).

**Genus HEMILEXODES Ashmead**

(= *Hemilexis* Foerster of Catalog, p. 674)

**Genus ANEURHYNCHUS Westwood, pp. 674-675**

Delete *Mythras* Curtis from synonymy and substitute the following: *Mythras* Brullé, 1846. Hist. Natl. Ins., Hymn., v. 4, p. 612.

Type: *Aneurhynchus galesiformis* Westwood, through citation of *Mythras* as a syn. of *Aneurhynchus* (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 372).

**Genus PSILUS Panzer, p. 675**

*Galesus* Curtis, 1831. Delete and replace with *Galesus* Haliday, 1829. In Curtis, A guide to an arrangement of British insects, column 108.

Type: *Psilus cornutus* Panzer. By monotypy. *Teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 354.

**Genus MONELATA Foerster, p. 676**

*Corynopria* Haliday. Add: Proposed as a subgenus of *Diapria* Latreille.

**Genus CERATOPRIA Ashmead, p. 678**

Remove from synonymy under *Trichopria*, p. 678 and place before *Trichopria*, on basis of study of genotype by C. F. W. Muesebeck. In citation change p. 439 to 428.

*bifoveolata* Ashmead. Transf. from *Trichopria*, p. 678.

*floridana* (Ashmead). Transf. from *Trichopria*, p. 678.

*infuscatipes* Ashmead. Transf. from *Trichopria*, p. 679.

*longiceps* Ashmead. Transf. from *Trichopria*, p. 679.

*megaplasta* Ashmead. Transf. from *Trichopria*, p. 679.

*pusilla* Ashmead. Transf. from *Trichopria*, p. 679.

**Genus TRICHOPRIA Ashmead, pp. 678-680**

*Trichopria* Ashmead. Change p. 432 to 431.

*Ceratopria* Ashmead. Delete from synonymy.

*Orthopria* Kieffer. Change 1910 to 1911, and before p. 984 insert "983".

*bifoveolata* (Ashmead). Transf. to *Ceratopria*, p. 678.

*floridana* (Ashmead). Transf. to *Ceratopria*, p. 678.

*infuscatipes* (Ashmead). Transf. to *Ceratopria*, p. 678.

*longiceps* (Ashmead). Transf. to *Ceratopria*, p. 678.

*megaplasta* (Ashmead). Transf. to *Ceratopria*, p. 678.

*pusilla* (Ashmead). Transf. to *Ceratopria*, p. 678.

**Genus BASALYS Westwood, p. 680**

\**ruficornis* Provancher. "Canada."

*Basalys ruficornis* Provancher, 1881. Nat. Canad. 12: 261. ♂.

**Genus DOLIOPRIA Kieffer, p. 681**

After Type change "Monob." to "First included species."



**Genus PROSYNACRA Kieffer, p. 681**

After literature citation add, "No species."

**Subfamily CINETINAE, p. 681**

Delete. Delete also statement immediately below. Replace with Subfamily Belytinae.

**Subfamily BELYTINAE, p. 681**

Replaces Subfamily Cinetinae, p. 681.

**Genus ISMARUS Haliday, p. 681**

*Entomia* Herrich-Schaeffer. Delete "Nom. nud." Add:

Type: *Entomia campanulata* Herrich-Schaeffer. By monotypy (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 350).

*Entomius* Haliday. Add "Emend." Delete type desig.

**Genus OXYLABIS Foerster, p. 681**

*Lyteba* Thomson. Insert 155 before 180.

**Genus BELYTA Jurine**

(= *Cinetus* Jurine of Catalog, pp. 682-683)

Transf. *Cinetus* and *Cinntus* to p. 684 where *Cinetus* Jurine replaces *Miota* Foerster.

**Genus CINETUS Jurine**

(= *Miota* Foerster, pp. 684-685)

Change type citation as given on p. 682 to *Cinetus iridipennis* Lepeletier and Serville, 1825. First included species (*teste* Muesebeck and Walkley, 1956, U. S. Natl. Mus. Proc. 105: 342).

\**americanus* (Ashmead). Fla.

*Psilomma americana* Ashmead, 1887. Canad. Ent. 19: 197. ♂.

*analis* Ashmead. Change to (Ashmead).

*californicus* Ashmead. Change from *californica* (Ashmead).

*canadensis* Ashmead. Change to (Ashmead).

*glaber* (Ashmead). Change from *glabra* Ashmead.

*monticola* (Kieffer). Delete parentheses.

*nasutus* Provancher. Change from *nasuta* (Provancher).

*pennsylvanicus* Kieffer. Change from *pennsylvanica* (Kieffer).

*xanthrocerus* Kieffer. Change from *xanthocera* (Kieffer).

**Genus ACLISTA Foerster, pp. 685-689**

\**aquilonia* Muesebeck, n. name. Replaces *ashmeadi* Muesebeck and Walkley, preocc.

*ashmeadi* Muesebeck and Walkley, 1951. Preoccupied. Replaced by *aquilonia* Muesebeck.

\**ashmeadi* (Kieffer). Calif. (San Mateo).

*Zelotypa Ashmeadi* Kieffer, 1905. Soc. Hist. Nat. Metz. (ser. 2) 12: 109. ♂.

\**consimilis* Muesebeck, n. name. Ont. (Ottawa).

\**Pantoclis similis* Ashmead, 1897. Canad. Ent. 29: 55. ♂. Preoccupied.

*flavipes* (Ashmead).

*Pantoclis ? flavidipes* Kieffer, 1910. In Wytsman, Gen. Ins., fasc. 107, p. 27. New name unnecessarily proposed.

*harringtoni* (Kieffer). Place before *hirtifrons* (Ashmead).

*jeannettensis* Muesebeck and Walkley. Place before *kiefferi* (Fouts), p. 687.

\**nevadensis* Kieffer. Nev. (Ormsby).

*Aclista nevadensis* Kieffer, 1905. Berlin. Ent. Ztschr. 50: 277. ♂.

*pacifica* Muesebeck and Walkley. Place before *paludicola* Muesebeck.

\**similis* (Ashmead), 1897, not 1893. Replaced by *consimilis* Muesebeck.

## Family SCELIONIDAE

Genus **TIPHODYTES** Bradley, p. 690

*gerriphagus* (Marchal). Calif.

Genus **EUMICROSOMA** Gahan, p. 690

*beneficum* Gahan.

Biology: After McCulloch, insert 1914. Jour. Econ Ent. 7: 219-227.

**TELENOMUS** subgenus **TELENOMUS** Haliday, pp. 691-694

*Prophanurus* Kieffer. In type citation, change "Desig. by Kieffer, 1926" to "Orig. desig."

*Paridris* Brèthes. After "N. syn." add "Preocc."

\**basalis* Wollaston. Africa, Australia, West Indies; Fla., La. Host: *Nezara viridula* (L.).

*Telenomus basalis* Wollaston, 1858. Ann. Mag. Nat. Hist. (3) 1: 25. ♂ ♀.

*Telenomus maderensis* Wollaston, 1858. Idem, ♀.

*Telenomus megacephalus* Ashmead, 1894. Linn. Soc. London Jour., Zool. 25: 203, 212. ♀.

*Telenomus picipes* Dodd, 1919. Ent. Soc. London Trans. 1919, p. 354. ♀ ♂.

Biology: Miller, 1928. Fla. Ent. 12: 17-20.—Cumber, 1951. New Zeal. Jour. Sci. and Technol., Sect. B, 32: 30-37.

*emersoni* (Girault). Place before *fimbriatus* Kieffer.

Biology: Parman, 1928. U. S. Dept. Agr. Cir. 18, 6 pp.

*megacephalus* Ashmead. Syn. of *basalis* Wollaston.

*utahensis* Ashmead. Host: *Euschistus impictiventris* Stål.

Genus **BAEUS** Haliday, p. 695

*Trichasius* Provancher. Delete from synonymy. Remove to Teleasinae, p. 696, where it replaces *Paragryon* Kieffer.

*clavatus* (Provancher). Transfer to *Trichasius*.

Genus **TRICHASIVS** Provancher

(= *Paragryon* Kieffer, p. 696)

Remove from synonymy under *Baeus*, p. 695, to Teleasinae, p. 696 where it replaces *Paragryon* Kieffer (*teste* Muesebeck, 1956. Ent. Soc. Wash. Proc. 58:24).

*clavatus* Provancher. Transfer from *Baeus*, p. 695.

Genus **TRIMORUS** Foerster, pp. 697-701

*Trimorus* Foerster. In type citation, change Ashmead, 1893 to Ashmead, 1903.

\**aeneus* (Provancher). Ont.

*Spalangia aenea* Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 200. ♂. Placed in *Trimorus* on the authority of O. Peck, who has studied the type.

**Genus SPARASION Latreille, pp. 701-702**

\**Bebelus* Gistel, 1848. Naturgesch. Tierr., p. X.

Type: *Sparasion frontalis* Latreille. Autob.

**Genus BARYCONUS Foerster**

(= *Hoploteleia* Ashmead, p. 703)

Type: *Baryconus floridanus* Ashmead. First included species  
(*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus.  
Proc. 105: 335).

*Baryconus* Foerster of Catalog, p. 705, becomes *Leptoteleia*.

**Genus ANTERIS Foerster, p. 704**

*Anteris* Foerster. Change type to *Anteris bilineatus* Thomson. Desig. by  
Muesebeck and Walkley, 1956.

\**Trichacolos* Kieffer, 1912. In André, Spec. Hym. Eur. Alg. 11: 89, 107.

Type: *Anteris bilineatus* Thomson. Desig. by Muesebeck and  
Walkley, 1956.

Delete from Catalog. No North American species known. Transf.  
*reticulata* Fouts to *Psilanteris* Kieffer.

**\*Genus PSILANTERIS Kieffer**

*Psilanteris* Kieffer, Brotéria, Rev. Luso-Brasil., Zool. ser., 14: 177.

Type: *Anteris bicolor* Kieffer. Orig. desig.

Place in Scelioninae after *Paridris* Kieffer, p. 704.

*reticulata* (Fouts), n. comb. Transf. from *Anteris* Foerster, p. 704 (*teste*  
Fouts, *in litt.*).

**Genus HADRONOTUS Foerster, pp. 704-705**

*Hadronotellus* Kieffer. Insert (ser. 2) before 11.

**Genus LEPTOTELEIA Kieffer**

(= *Baryconus* Foerster of Catalog, p. 705)

Delete original citation of *Baryconus* Foerster.

**Genus CERATOTELEIA Kieffer**

(= *Prosanteris* Kieffer, p. 704)

*Prosanteris* Kieffer. N. syn. (based on exam. of genotype by C. F. W.  
Muesebeck).

*marlattii* (Ashmead). N. Mex.

*Macroteleia ruskini* Girault. N. syn. (based on exam. of type by C. F. W.  
Muesebeck). Transf. from *Macroteleia*, p. 706.

*Prosanteris nigriceps* Ashmead. N. syn. (based on exam. of type by  
C. F. W. Muesebeck). Transf. from *Prosanteris*, p. 704.

*virginiensis* (Ashmead), n. comb. Transf. with *Prosanteris*, p. 704.

**Genus MACROTELEIA Westwood, p. 706**

*Macrotelia*. Delete Schulz and following citation. Substitute Agassiz,  
1846. Nomencl. Zool. Index Univer., p. 221.

*ruskini* Girault. N. syn. of *Ceratoteleia marlattii* (Ashmead), p. 705.

**Genus STICTOTELEIA Kieffer, p. 706**

\**rugosus* (Provancher). Canada.

*Paphagus rugosus* Provancher, 1881. Nat. Canad. 12: 293. ♂. (Placed in  
*Stictoteleia* on the authority of O. Peck, who has studied the type.)

## Family PLATYGASTERIDAE

## Genus ALLOTROPA Foerster, pp. 707-708

\**merrilli* Muesebeck. Fla., La. Host: *Trionymus* sp. on bald cypress.

*Allotropia merrilli* Muesebeck, 1954. Brooklyn Ent. Soc. Bul. 49: 20.  
♂ ♀.

*utilis* Muesebeck. B. C.

## Genus ISOSTASIUS Foerster, p. 708

After Type, change "Desig. by Ashmead, 1893" to "By monotypy."

## Genus ISOCYBUS Foerster, p. 709

Change type citation to *Platygaster grandis* Nees, 1834. Desig. by Ashmead, 1893 (*teste* Muesebeck and Walkley, 1956. U.S. Natl. Mus. Proc. 105: 362).

## Genus AMITUS Haldeman, p. 709

\**Elaptus* Forbes, 1885 (1884). Rept. Ill. State Ent. 14: 110.

Type: *Elaptus aleurodis* Forbes. By monotypy. Error for *Alaptus* Westwood to which Forbes wrongly considered his species to belong. *Elaptus* Forbes, moreover, is preocc.

## Genus PLATYGASTER Latreille, pp. 710-715

*Hypocampsis* Foerster. Change type citation to *Hypocampsis hyalinata* Thomson, 1859. Desig. by Ashmead, 1903 (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 360).

\**opaca* Ruthe. Europe, Iceland, Greenland.

*Platygaster opacus* Ruthe, 1859. Stettin. Ent. Zeit. 20: 313.

## Genus LEPTACIS Foerster, pp. 716-718

*Synopeas* Foerster. After Type delete (*Synopeas*).

*Anopedias* Foerster. Change type citation to *Anopedias obscurus* Thomson, 1859. Desig. by Ashmead, 1903 (*teste* Muesebeck and Walkley, 1956. U. S. Natl. Mus. Proc. 105: 329).

## Superfamily BETHYLOIDEA

Replaces the heading, Superfamily Chrysidoidea, p. 718.

## Family CHRYSIDIDAE

## Genus OMALUS Panzer, p. 718

*iridescens* (Norton). Hosts: *Diodontus trisulcus* (Fox), *Stigmus americanus* Pack.

*sinuosus* (Say). Change *purpurascens* to *purpuratus* Provancher, and p. 303 to 302; *purpurascens* is a *lapsus* on p. 303.

## Genus ELAMPUS Spinola, p. 719

*marginatus* Patton. Delete entire ref. to *Elampus viridis* Provancher; this was a misdct. of the Cuban *viridis* Cresson.

*viridicyaneus* Norton. Host: *Psammaecius costalis* (Cr.).

## Genus HEDYCHRIDIIUM Abeille de Perrin, p. 720

*caeruleum* (Norton). Change sp. heading from *coeruleum* to *caeruleum*.

*dimidiatum* (Say). Add parentheses to author's name in sp. heading.

*fletcheri* Bodenstein. Host: *Tachysphex* sp.



\**semirufum* (Cockerell), n. comb. N. Mex. (Las Cruces).

*Holopyga semirufa* Cockerell, 1896. *Psyche* (sup.) 7: 17. ♀. (Gen. transf. based on type exam. by K. V. Krombein.)

**Genus HEDYCHRUM Latreille, pp. 720-721**

*violaceum* Brullé. Host: Dug from nest of *Cerceris architis* Mick. in ground.

**CHRYSID subgenus CHRYSURA Dahlbom, p. 721**

*smaragdicolor* Walker. *Anthophora occidentalis* Cr.

**CHRYSID subgenus CHRYSOGONA Foerster, pp. 721-722**

*faceta* Aaron. Transf. to *Chrysis* (*Ceratochrysis*).

\**unita* Mocsáry. Tex., Calif.; Mexico.

*Chrysis* (*Olochrysis*) *unita* Mocsáry, 1889. *Monog. Chrysid.*, p. 211. ♀

*verticalis* Patton. Host: *Trypoxylon* (*Trypargilum*) sp.

**CHRYSID subgenus DICHRYSID Lichtenstein, p. 722**

\**annulipes* (Mocsáry), n. comb. Calif.

*Spintharis annulipes* Mocsáry, 1911. *Mus. Nat. Hungaric. Ann.* 9: 462. ♂.

\**nearctica* (Mocsáry), n. comb. Ariz.

*Spintharis nearctica* Mocsáry, 1911. *Mus. Nat. Hungaric. Ann.* 9: 462. ♀.

*quadri-tuberculata* Cameron. Transf. to *Chrysis* (*Ceratochrysis*).

**\*CHRYSID subgenus CERATOCHRYSID Cooper**

*Chrysis* subg. *Ceratochrysis* Cooper, 1952. *Amer. Ent. Soc. Trans.* 78: 138.

Type: *Chrysis* (*Ceratochrysis*) *enhuycki* Cooper. Orig. desig.

Taxonomy: Cooper, 1952. *Amer. Ent. Soc. Trans.* 78: 137-148.

Place after *Chrysis* subg. *Dichrysis* Lichtenstein, p. 722.

\**enhuycki* Cooper. N. Y., N. J., Va., Mo., Ariz. Reared from sumach twigs.

*Chrysis* (*Ceratochrysis*) *enhuycki* Cooper, 1952. *Amer. Ent. Soc. Trans.* 78: 140, figs. 3, 5, 6, 8, 9. ♀ ♂.

*faceta* Aaron. Tex., N. Mex., Colo., Calif. Transf. from *Chrysis* (*Chrysogona*), p. 722.

*quadri-tuberculata* Cameron. Tex.; Mexico, El Salvador. Transf. from *Chrysis* (*Dichrysis*), p. 722.

**CHRYSID subgenus TRICHRYSID Lichtenstein, p. 722**

*parvula* Fabricius. Hosts: *Trypoxylon rubro-cinctum* Pack, *T. clavatum* Say.

**CHRYSID subgenus CHRYSID Linnaeus, pp. 722-725**

*alabamensis* Mocsáry. D. C., Va., N. C., Ga., Fla. Host: *Podium carolina* Roh.

*chalcopyga* Mocsáry. Wis., N. Y., W. Va. Hosts: *Ryeghium f. foraminatum* (Sauss.), *Symmorphus c. cristatus* (Sauss.), *Ancistrocerus a. antilope* (Panz.)

*coerulans* Fabricius. Hosts: *Ancistrocerus a. antilope* (Panz.), *A. t. tigris* (Sauss.), *A. c. catskill* (Sauss.), *Ryeghium f. foraminatum* (Sauss.).

*conica* Brullé. Host: *Eumenes* sp.

\**fuscipennis* Brullé. Introduced in D. C., Md., Va.; Hawaii; Palaearctic, Oriental, Australian. Hosts: *Eumenes conica* (F.) in India, *Sceliphron* spp. in Japan.

*Chrysis fuscipennis* Brullé, 1846. *Hist. Nat. Ins. Hym.*, v. 4, p. 38. ♀.

*Chrysis erratica* Abeille de Perrin, 1887. *In* Buysson, *Rev. d'Ent.* 6: 189.

♂ ♀.

*Chrysis pulchellus* Cameron, 1888. Manchester Lit. and Phil. Soc. Mem. and Proc. 26: 126. Preocc.

Taxonomy: Krombein, 1956. Ent. Soc. Wash. Proc. 58: 275.

*pellucidula* Aaron. Wis. Host: *Trypoxylon rubro-cinctum* Pack.

*provancheri* Schulz. Change Canad. Ent. to Nat. Canad. in orig. cit. of *aurichalcea* Provancher.

### **CHRYISIS subgenus PYRIA Lepeletier and Serville, p. 725**

*fabricii* Mocsáry. Hosts: *Rygchium megaera* (Lep.), *R. foraminatum apokense* (Robt.).

\**lateralis* Brullé. D. C., Ga., Fla., Tex.; possibly introduced from South America.

*Chrysis lateralis* Brullé, 1846. Hist. Nat. Ins. Hym., v. 4, p. 26. ♀ ♂.

*smaragdula* Fabricius. Host: *Monobia quadridens* (L.).

*texana* Gribodo. Fla.

### **Genus STILBUM Spinola, p. 725**

This appears not to be established in North America, and the single specimen in the Provancher collection, supposedly collected in Ontario, may have been either a stray or erroneously labeled.

### **Genus PARNOPES Latreille, pp. 725-726**

The generic name is masculine, and all specific names requiring agreement in gender should be changed.

*aglaspidula* Melander and Brues. Syn. of *chrysoprasinus* Smith.

*chrysoprasinus* Smith. Conn. south to Fla., Mich., Wis., Ill., Tex.

*Parnopes aglaspidula* Melander and Brues, n. syn. (teste K. V. Krombein, based on notes furnished by I. H. H. Yarrow on type of *chrysoprasinus* and study of *Meredosia*, Ill., cotype of *aglaspidula*).

*edwardsii* (Cresson). Host: *Bembix comata* Prkr.

Biology: Bohart and MacSwain, 1940. Pan-Pacific Ent. 16: 92-93.

*hageni* Viereck. Calif. Host: *Bembix comata* Prkr.

*westcottii* Melander and Brues. Host: *Microbembex nigrifrons* (Prov.).

Biology: Bohart and MacSwain, 1940. Pan-Pacific Ent. 16: 92-93.

### **Subfamily CLEPTINAE**

Replaces the heading, Family **Cleptidae**, p. 726.

### **\* Subfamily AMISEGINAE**

Taxonomy: Krombein, 1957. Amer. Ent. Soc. Trans. 82: 147-215, 4 pls. (gen. reclassification).

Insert this heading above **Mesitiopterus** Ashmead, p. 726.

### **Genus MESITIOPTERUS Ashmead, p. 726**

*kahlui* Ashmead. N. Y. south to N. C., Wis., Minn., Kans.

### **\* Subfamily ADELPHINAE**

Insert this heading with component genus after **Mesitiopterus** Ashmead, p. 726.

### **\* Genus ADELPHÉ Mocsáry**

*Adelphé* Mocsáry, 1890. Termes. Fuzetek 13: 46.

Type: *Adelphé mexicana* Mocsáry. Monotypic and by design. of Ashmead, 1902.

\**Pseudepyris* Ducke, 1902. Ztschr. Hym. Dipt. 2: 204.

Type: *Pseudepyris paradoxa* Ducke. Monotypic and by design. of Bodenstern, 1939.

\**Adelpha* Schulz, 1906. *Spolia Hym.*, p. 153. Proposed unnecessarily for *Adelphe* Mocsáry. Preocc. by Hübner, 1819.

\**Parachrysis* Kieffer, 1910. *Ann. Soc. Ent. France* 78: 287. Preocc. by Gribodo, 1879.

Type: *Parachrysis metallica* Kieffer. Monotypic and by present desig.

A teratological specimen of an apparently new species was collected in Royal Palm Hammock, Collier County, Florida.

## Superfamily BETHYLOIDEA, p. 726

Delete this heading. It replaces Superfamily Chrysidoidea, p. 718.

## Family BETHYLIDAE

### Genus CEPHALONOMIA Westwood, p. 727

*utahensis* Brues. Calif. Hosts: larvae of *Conophthorus lambertianae* Hopk., *C. ponderosae* Hopk.

Biology: Ruckes, 1956. *Pan-Pacific Ent.* 32: 184-185, 1 fig.

### Genus LAELIUS Ashmead, p. 728

*trogodermais* Ashmead. Va. (Arlington), Ariz. Host: *Trogoderma parabile* Beal, *T. simplex* Jayne.

Biology: Howard, 1901. *The Insect Book*, pp. 34-36, fig. 18.—Krombein, 1955. *Brooklyn Ent. Soc. Bul.* 50: 13-14.

*voracis* Muesebeck. Va. (Arlington).

Biology: Back, 1940. *Ent. Soc. Wash. Proc.* 42: 110-113, 1 pl.

### Genus EPYRIS Westwood, pp. 728-729

*californicus* (Ashmead). Utah.

\**deficiens* Krombein. W. Va. (Lost River St. Pk.).

*Epyris deficiens* Krombein, 1956. *Ent. Soc. Wash. Proc.* 58: 156, fig. 3. ♀.

*formicoides* (Provancher). Que. (Hull).

*Bethylus formicoides* Provancher of Catalog, p. 734. (Transf. based on type exam. by K. V. Krombein).

### Genus PRISTOCERA Klug, p. 731

*armifera* (Say).

\**Scleroderma contracta* Westwood, 1839. *Ent. Soc. London Trans.* 2: 169, pl. 12, fig. 11. ♀. (Syn. by Ashmead, 1893. *U. S. Natl. Mus. Bul.* 45: 34).

*atra* Klug.

\**Scleroderma thoracica* Westwood, 1839. *Ent. Soc. London Trans.* 2: 167. ♀. (Syn. by Ashmead, 1893. *U. S. Natl. Mus. Bul.* 45: 33).

\**contracta* (Westwood). Syn. of *armifera* (Say).

\**thoracica* (Westwood). Syn. of *atra* Klug.

### Genus PSEUDISOBRACHIUM Kieffer, pp. 731-732

\**carbonarius* (Ashmead), n. comb. D. C.

*Epyris carbonarius* Ashmead, 1893. *U. S. Natl. Mus. Bul.* 45: 59, pl. 4, fig. 4. ♂. (Transf. based on type exam. by K. V. Krombein).

*prolongatus* (Provancher), n. comb. Que. (Cap Rouge).

*Bethylus prolongatus* Provancher of Catalog, p. 734. (Transf. based on type exam. by K. V. Krombein).

### Genus DISSOMPHALUS Ashmead, p. 732

?\**Ecitopria* Wasmann, 1899. *Zoologica*, h. 26, p. 55.

Type: *Ecitopria crassicornis* Wasmann. Monotypic.

?\**Psilobethylus* Kieffer, 1906. In André, Spec. Hym. Eur. Alg., v. 9, p. 461.

Type: *Psilobethylus luteus* Kieffer. Monotypic.

Revision: Evans, 1954. Ent. Soc. Wash. Proc. 56: 288-309, 21 figs.

\**altivolans* Evans. La. (Tallulah).

*Dissomphalus altivolans* Evans, 1954. Ent. Soc. Wash. Proc. 56: 307, figs. 7, 21. ♂.

*apertus* Kieffer. Mexico north to Kans., Ohio, and N. J.

\**barberi* Evans. Md. (Plummer's Is.).

*Dissomphalus barberi* Evans, 1954. Ent. Soc. Wash. Proc. 56: 298, figs. 3, 10, 16, 19. ♂ ♀.

\**foveolatus* (Brown and Cheng). Md., Va., Miss., Ariz.

*Psilobethylus foveolatus* Brown and Cheng, 1952. Psyche 58: 143, fig. 1. ♀.

\**kansanus* Evans. Kans. (Lawrence).

*Dissomphalus kansanus* Evans, 1954. Ent. Soc. Wash. Proc. 56: 302, figs. 4, 11, 17. ♂.

\**lucidus* (Brown and Cheng). Syn. of *xanthopus* Ashmead.

\**nigrescens* Evans. Tex., La., Ala.

*Dissomphalus nigrescens* Evans, 1954. Ent. Soc. Wash. Proc. 56: 308, figs. 8, 14. ♂.

*xanthopus* Ashmead. U. and L. Austr. Zones east of Rockies; Mexico (Vera Cruz, Tabasco).

\**Psilobethylus lucidus* Brown and Cheng, 1952. Psyche 58: 146, figs. 2, 3. ♀.

#### Genus BETHYLUS Latreille, p. 732

\**castaneus* Kieffer. U. S.

*Bethylus castaneus* Kieffer, 1907. Berlin. Ent. Ztschr. 51: 295. ♀.

*decipiens* (Provancher), n. comb. Que., Maine.

*Gonatopus decipiens* Provancher, of Catalog, p. 1038. (Transf. based on type exam. by K. V. Krombein).

#### Genus PERISIEROLA Kieffer, pp. 733-734

\**breviceps* Krombein. Calif. (Tracy). Host: *Myelois venipars* Dyar, larva.

*Perisierola breviceps* Krombein, 1954. Pan-Pacific Ent. 30: 259. ♀.

\**distinguenda* (Kieffer), n. comb. Calif.; Nicaragua.

*Parasierola cellularis* "Say", Kieffer, 1906. Berlin. Ent. Ztschr. 50: 254. ♀. Misdet.

*Parasierola distinguenda* Kieffer, 1908. Gen. Ins., fasc. 76, p. 14. N. name for *cellularis* "Say", Kieffer.

#### Unrecognized Species of Bethylidae, p. 734

*Bethylus formicoides* Provancher. Transf. to *Epyris*, p. 729.

*Bethylus prolongatus* Provancher. Transf. to *Pseudisobrachium*, p. 731.

### Family DRYINIDAE

Transf. from pp. 1034-1043.

Taxonomy: Richards, 1953. Roy. Ent. Soc. London Trans. 104: 51-70 (keys to some genera of Anteoniini and Dryinini).

#### \*Genus THAUMATODRYINUS Perkins

*Thaumatodryinus* Perkins, 1950. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1(1): 58.

Type: *Thaumatodryinus koebelei* Perkins. By monotypy.

Taxonomy: Krombein, 1952. Amer. Ent. Soc. Trans. 78: 97-99, 1 pl. (revis. gen. diag. and key to spp.)

Place in Dryinini after *Tetradryinus* Kieffer, p. 1035.



\**perkinsi* Krombein. Va. (Westmoreland St. Pk.).

*Thaumatomydryinus perkinsi* Krombein, 1952. Amer. Ent. Soc. Trans. 78: 99, figs. 2, 2a, 2b. ♀.

### \*Tribe GONATOPODINI

This tribal heading should be inserted after the genus *Perodryinus* Perkins, p. 1035.

#### \*Genus PRODRYINUS Kieffer

(= *Psilodryinus* Kieffer, p. 1035)

*Prodryinus* Kieffer, 1906. In André, Spec. Hym. Eur. Alg., v. 9, p. 497.

Type: *Dryinus brachycerus* Kieffer. Orig. desig.

Richards (1953. Roy. Ent. Soc. London. Trans. 104: 61) placed *Psilodryinus* as a synonym of *Prodryinus*, stating that the latter name had priority on the page. Actually, the reverse is true, but Richards is the first reviser so his action stands. He suggested further, that *Prodryinus* is only subgenerically distinct from *Neodryinus* Perkins, 1905, but they are being considered as distinct genera until the world fauna of Dryinidae is better known.

#### Genus CHALCOGONATOPUS Perkins, p. 1037

\**argyrias* Perkins. Ariz. (Nogales).

*Chalcogonatopus argyrias* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 20. ♀.

\**californicus* (Ashmead), n. comb. Calif.

*Gonatopus californicus* Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 85. ♀.

\**echo* Perkins. Ariz. (Nogales).

*Chalcogonatopus echo* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 23. ♀.

\**euprepes* Perkins. Ariz. (Nogales).

*Chalcogonatopus euprepes* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 18. ♀.

*Chalcogonatopus euprepes* var. *a* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 19. ♀.

*Chalcogonatopus euprepes* (!) Kieffer, 1914. Das Tierreich, Lief. 41, p. 99.

\**euprepoides* Perkins. Ariz. (Nogales).

*Chalcogonatopus euprepoides* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 19. ♀.

*Chalcogonatopus euprepoides* (!) Kieffer, 1914. Das Tierreich, Lief. 41, p. 99.

\**flavifrons* (Ashmead). N. Y. (Albany).

*Gonatopus flavifrons* Ashmead, 1893. U. S. Natl. Mus. Bul. 45: 84, pl. 5, fig. 4. ♀.

\**frequens* Perkins. Ariz. (Nogales).

*Chalcogonatopus frequens* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 21. ♀.

\**harpax* Krombein. W. Va. (Lost River St. Pk.).

*Chalcogonatopus harpax* Krombein, 1956. Ent. Soc. Wash. Proc. 58: 158, fig. 1. ♀.

\**herbarum* Perkins. Ariz. (Nogales).

*Chalcogonatopus herbarum* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 23. ♀.

\**koebeleri* Perkins. Ariz. (Nogales).

*Chalcogonatopus koebeleri* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 26. ♀.

\**leptias* Perkins. Ariz. (Nogales).

*Chalcogonatopus leptias* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 17. ♀.

- \***niger** Fenton, emend. Iowa. Host: *Scaphoideus* sp., probably *immistus* Say.  
*Chalcogonatopus nigrus* Fenton, 1924. Ohio Jour. Sci. 24: 193, fig. 3.  
 ♀.
- \***paraleptias** Perkins. Ariz. (Nogales).  
*Chalcogonatopus paraleptias* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 18. ♀.
- \***perdebilis** Perkins. Ariz. (Nogales).  
*Chalcogonatopus perdebilis* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 27. ♀.
- \***pseudochromus** Perkins. Ohio (Columbus).  
*Chalcogonatopus (Eugonatopus) pseudochromus* Perkins, 1905. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 1: 48. ♀.
- \***rapax** Perkins. Ariz. (Nogales). Host: "Jassid" nymph on willow.  
*Chalcogonatopus rapax* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 20. ♀.
- \***simulator** Perkins. Ariz. (Nogales).  
*Chalcogonatopus simulator* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 26. ♀.
- \***solitarius** Perkins. Ariz. (Nogales).  
*Chalcogonatopus solitarius* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 22. ♀.
- \***unicus** Perkins. Ariz. (Nogales).  
*Chalcogonatopus unicus* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 25. ♀.
- \***xestocephalus** Perkins. Ariz. (Nogales).  
*Chalcogonatopus xestocephalus* Perkins, 1907. Hawaii. Sugar Planters' Assoc. Expt. Sta., Div. Ent. Bul. 4: 24. ♀.

#### Genus GONATOPUS Ljungh, pp. 1037-1038

**ashmeadi** Kieffer. Fla.

**decipiens** Provancher. Transf. to *Bethylus*, p. 732.

#### Genus DEINODRYINUS Perkins, p. 1041

**atriceps** (Brues). Va., W. Va.

**grandis** (Brues). W. Va.

**henshawii** (Ashmead). Wis.

#### Genus APHELOPUS Dalman, pp. 1042-1043

**albopictus** Ashmead. Va.

### Family TRIGONALIDAE

Taxonomy: Townes, 1956. U. S. Natl. Mus. Proc. 106: 295-304, figs.

#### Genus POECILOGONALOS Schulz, p. 735

**costalis** (Cresson). S. C.

#### Genus LYCOGASTER Shuckard, p. 735

Author name misspelled Schuckard in Catalog.

**nevadensis** (Cresson). A subsp. of **pullata** Shuckard.

**pullata nevadensis** (Cresson), changed status. S. Dak., Oreg.

*Lycogaster nevadensis* (Cresson). A subsp. of **pullata** (teste Townes, 1956. U. S. Natl. Mus. Proc. 106: 298, 300).

**pullata pullata** Shuckard, changed status. Ohio, N. C. Host: *Ryeghium f. foraminatum* (Sauss.).

*Lycogaster pullata* Shuckard. A subsp. of **pullata** (teste Townes, 1956. U. S. Natl. Mus. Proc. 106: 298, 299).

Biology: Cooper, 1954. Wash. Ent. Soc. Proc. 56: 283-288, figs.

## Superfamily SCOLIOIDEA

## Family TIPHIIDAE

## Genus TIPHIA Fabricius, pp. 735-739

\**dryophila* Krombein. N. C. (Kill Devil Hills).

*Tiphia dryophila* Krombein, 1953. Wasmann Jour. Biol. 10: 301. ♂ ♀.

*floridana* Robertson.

Taxonomy: Krombein, 1953. Wasmann Jour. Biol. 10: 305.

*jaynesi* Allen. W. Va.

*subcarinata* Malloch. W. Va., N. C.

*waldenii* Viereck. Change spelling in first citation from *waldenii* to *waldonii*.

## NEOTIPHIA subgenus NEOTIPHIA Malloch, p. 739

*waltoni* Allen. Ariz.

## NEOTIPHIA subgenus KROMBEINIA Pate, p. 739

*sulcata* (Roberts). Ariz.

## Genus MYZINUM Latreille, pp. 741-742

\**namea fulviceps* Cameron, n. status. South. Ariz. to Guatemala.

*Myzine fulviceps* Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 248, pl. 12, fig. 20. ♀. A subsp. of *namea* (Fabricius) (*teste* K. V. Krombein, who has in MS a synopsis of Mexican *Myzinum*).

*namea namea* (Fabricius), changed status.

*Myzinum namea* (Fabricius) of Catalog. Reduced to subsp. rank (*teste* K. V. Krombein).

## Genus BRACHYCISTIS Fox, pp. 742-745

*inaequalis* Fox.

\**Brachycistis nocticola* Bradley, 1917. Amer. Ent. Soc. Trans. 43: figs. 19, 39, 40. ♂. (Syn. by Krombein, 1954. Ent. Soc. Wash. Proc. 56: 85).

\**nocticola* Bradley. Syn. of *inaequalis* Fox.

*triangularis* Fox. Calif.

## METHOCHA subgenus METHOCHA Latreille, p. 747

\**formosa* Krombein. Fla. (Arcadia).

*Methocha (Methocha) formosa* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 2, figs. 1, 3. ♀.

## MYRMOSA subgenus MYRMOSA Latreille, pp. 747-748

*unicolor* Say.

Biology: Krombein, 1956. Ent. Soc. Wash. Proc. 58: 154 (mating behavior).

## Genus MYRMOSULA Bradley, p. 748

*rutilans* (Blake). Host: *Nomadopsis scutellaris* (Fwlr.)

## Family MUTILLIDAE

## Genus PHOTOMORPHUS Viereck, pp. 751-752

\**Photomorphus* subg. *Photomorphina* Schuster, 1952. Brooklyn Ent. Soc. Bul. 47: 53.

Type: *Photomorphus (Photomorphina) aurifera* Schuster. Orig. desig.

Taxonomy. Krombein, 1954. Amer. Ent. Soc. Trans. 80: 6-7 (key to eastern ♀♀).

**alogus** Viereck. Fla.

Taxonomy: Krombein, 1954. Amer. Ent. Soc. Trans. 80: 3. ♀.

\***aurifera** Schuster. Ariz. (Douglas). (*Photomorphina*)

*Photomorphus* (*Photomorphina*) *aurifera* Schuster, 1952. Brooklyn Ent. Soc. Bul. 47: 53. ♂.

**clandestinus** (Viereck). Transf. from *Odontophotopsis*, p. 756 (*teste* Schuster, 1952. Brooklyn Ent. Soc. Bul. 47: 56). (*Photomorphina*)

\***juanita** Schuster. Tex. (McAllen, Brownsville). (*Photomorphina*)

*Photomorphus* (*Photomorphina*) *juanita* Schuster, 1952. Brooklyn Ent. Soc. Bul. 47: 57. ♂.

**paula** (Bradley). Fla. Transf. from *Odontophotopsis*, p. 757 (*teste* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 4. ♀).

### Genus *SPHAEROPHTHALMA* Blake, p. 752

**contracta** (Blake), n. comb. Transf. from *Photopsis* Blake, p. 754 (*teste* W. E. Ferguson who has examined the type).

### Genus *PHOTOPSIS* Blake, pp. 753-756

**acontia** (Fox). Tex., Ariz. Change date of Melander paper from 1904 to 1903.

**anthophorae** (Ashmead). Host: *Melecta c. californica* Cr.

**auraria** (Blake). Host: *Diadasia bituberculata* (Cr.).

\**Photopsis nebulosus* Blake, 1886. Amer. Ent. Soc. Trans. 13: 275. ♂.  
(Syn. by Linsley and MacSwain, 1952. Pan-Pacific Ent. 28: 132.)

\***blakeii** (Fox). Calif.; Baja Calif.

*Photopsis Blakeii* Fox, 1893. Calif. Acad. Sci. Proc. (2) 4: 6. ♂.

*Mutilla gautschii* Dalla Torre, 1897. Cat. Hym. 8: 43. N. name erroneously proposed for *blakeii* Fox, thought to be preocc. by Cameron, 1894.

\***ceyx** (Fox), n. comb. Calif. (San Diego Co.); Baja Calif.

*Mutilla ceyx* Fox, 1899. Amer. Ent. Soc. Trans. 25: 262. ♂.

**contracta** (Blake). Transf. to *Sphaerophthalma* Blake, p. 752.

**danaus** (Blake). Transf. from *Odontophotopsis*, p. 756 (*teste* W. E. Ferguson who has examined the type).

**jason** (Fox). Trans. to *Odontophotopsis*, p. 757.

**melanderi** Baker. Host: *Dianthidium curvatum sayi* Ckll.

**nanula** (Dalla Torre). Idaho. Host: *Tachysphex* sp.

\***nebulosa** Blake. Syn. of *auraria* (Blake).

**seminanula** Rohwer. In orig. cit change p. 103 to p. 130.

**virguncula** (Blake). Species was described originally in *Sphaerophthalma* (!), not *Mutilla*.

### Genus *ODONTOPHOTOPSIS* Viereck, pp. 756-758

**argentipilis** (Provancher), n. comb. Transf. from Mutillidae of Uncertain Generic Position, p. 773 (*teste* K. V. Krombein who has examined the type). Published type locality Fla. is erroneous.

\***biramosa** Schuster. Calif. (Holtville).

*Odontophotopsis* (*Odontophotopsis*) *biramosa* Schuster, 1952. Brooklyn Ent. Soc. Bul. 47: 43, fig. 1. ♂.

**clandestina** Viereck.. Transf. to *Photomorphus*, p. 751.



**concolor** (Cresson). Host: *Tachysphex* sp.

**danaus** (Blake). Transf. to **Photopsis**, p. 754.

**jason** (Fox), n. comb. Transf. from **Photopsis**, p. 754 (*teste* W. E. Ferguson who has examined the type).

**paula** (Bradley). Transf. to **Photomorphus**, pp. 751-752.

\***setifera** Schuster. South. Calif., Ariz.

**Odontophotopsis** (**Odontophotopsis**) **setifera** Schuster, 1952. Brooklyn Ent. Soc. Bul. 47: 47. ♂.

#### Genus **PSEUDOMETHOCA** Ashmead, pp. 758-761

**aetis** (Fox). A subsp. of **sanbornii** (Blake).

**anthracina** (Fox).

**Pseudomethoca harpalyce** (Fox) (*teste* Hurd, 1951. Pan-Pacific Ent. 27: 156).

**frigida frigida** (Smith), changed status.

**Pseudomethoca frigida** (Smith) of Catalog. Reduced to subsp. rank (*teste* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 7, fig. 6).

\***frigida torrida** Krombein. Fla.

**Pseudomethoca frigida torrida** Krombein, 1954. Amer. Ent. Soc. Trans. 80: 7, fig. 7. ♀ ♂.

**harpalyce** (Fox). Syn. of **anthracina** (Fox).

**propinqua** (Cresson). Host: *Nomia m. melanderi* Ckll.

**sanbornii aetis** (Fox), changed status.

**Pseudomethoca aetis** (Fox) of Catalog. Reduced to subsp. rank (*teste* Krombein, 1953. Wasmann Jour. Biol. 10: 308).

**sanbornii sanbornii** (Blake), changed status.

**Pseudomethoca sanbornii** (Blake) of Catalog. Reduced to subsp. rank (*teste* Krombein, 1953. Wasmann Jour. Biol. 10: 308).

**toumey** (Fox). Mexico (Sonora).

#### Genus **DASYMUTILLA** Ashmead, pp. 761-770

Taxonomy: Hurd, 1951. Calif. Ins. Survey Bul. 1: 89-118, 1 pl. (Calif. spp.)

**atricauda** Mickel. Ariz.

**aureola** (Cresson). Hosts: *Anthophora stanfordiana* Ckll., *Melissodes* sp.

**asopus bexar** (Blake). Host: *Dianthidium curvatum sayi* Ckll.

**beameri** Mickel. N. syn. of **rubicunda** Bradley, erroneously considered a syn. of **cypris** (Blake).

**bioculata** (Cresson). Host: ? *Bembix spinolae* Lep.

**californica** var. **elio** (Blake). Calif., Nev.

**chattahoochei** Bradley.

Taxonomy: Krombein, 1954. Amer. Ent. Soc. Trans. 80: 9, fig. 5. ♂.

**cypris** (Blake). Delete **rubicunda** Bradley, valid sp., from syn.

**clytemnestra** (Fox). Delete Oreg.; range is south. Calif.

**coccineohirta** (Blake). Host: *Cerceris californica* Cr., ? *Bembix occidentalis beutenmülleri* Fox.

**creusa** (Cresson). Host: *Bembix spinolae* Lep.

**eminentia** Mickel. Baja Calif.

**errabunda** Mickel. Calif.

**foxi** (Cockerell). Calif. Host: *Diadasia diminuta* (Cress.).

Biology: Cockerell, 1896. Nature 54: 461.

**fulvohirta** (Cresson). Host: *Diadasia enavata* (Cr.), *Megachile perihirta* Ckll.  
**gloriosa** (Saussure). Baja Calif., Mexico.

**interrupta** Banks.

Taxonomy: Krombein, 1953. Wasmann Jour. Biol. 10: 310.

**klugii** (Gray). Host: ? *Sphecius grandis* (Say).

Biology: Bradley, 1920. Ent. News 31: 112-113.

**magna** (Cresson). Baja Calif., Mexico.

**magnifica** Mickel. Baja Calif., Mexico.

**mutata** (Blake).

Taxonomy: Krombein, 1953. Wasmann Jour. Biol. 10: 310.

**nocturna** Mickel. Nev.

**occidentalis comanche** (Blake). Ariz.

**paenulata** Mickel. Calif.

**phoenix** (Fox). Host: *Ptilothrix sumichrasti* (Cr.).

**pseudopappus** (Cockerell). Calif.

**rubicunda** Bradley. Cent. Fla. A valid sp., not a syn. of *cypriis* (Blake).

*Dasymutilla beameri* Mickel of Catalog, n. syn. (teste R. M. Schuster who has examined types of both species).

**sackenii** (Cresson). Baja Calif.

**satanas** Mickel. Baja Calif.

**scitula** Mickel. Nev., Calif.

**ursula** (Cresson). Calif. Host: *Bembix spinolae* Lep.

**vesta sappho** (Fox). Host: *Bembix cinerea* Handl.

**vesta vesta** (Cresson). Host: *Nomia melanderi melanderi* Ckll.

#### Genus **LOMACHAETA** Mickel, p. 770

**variegata** Mickel. Host: *Solierella* sp.

#### **TIMULLA** subgenus **TIMULLA** Ashmead, pp. 770-772

**euterpe** (Blake). N. C. (Kill Devil Hills).

**leona** (Blake). Host: ? *Bembix troglodytes* Handl.

**rufosignata** (Bradley). N. C. (Kill Devil Hills).

Taxonomy: Krombein, 1953. Ent. Soc. Wash. Proc. 55: 128. ♀.

#### Genus **EPHUTA** Say, pp. 772-773

Revision: Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 1-43, 5 pls. (Part I containing only gen. diag. and key to spp.).

\***albiceps** Schuster. Tex. (Tyler).

*Ephuta albiceps* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 31 (in key). ♀.

\***argenteiceps** Schuster. Calif.

*Ephuta californica* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: footnote on p. 25. ♂. N. syn. (On p. 15 Schuster states that there is only one sp. in Calif., and in key to ♀ ♀ *argenteiceps* is the only sp. stated to be from Calif.).

*Ephuta argenteiceps* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 26, 32 (in key). ♂ ♀.

\***auricapitis** Schuster. Tex. (Edinburgh).

*Ephuta auricapitis* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 31 (in key). ♀.

\***baboquivari** Schuster. Ariz. (Baboquivari Mts.)

*Ephuta baboquivari* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 31 (in key), figs. 39, 41. ♀.

**battlei battlei** Bradley, changed status. Coastal N. C., Ga., Fla.

*Ephuta battlei* Bradley. Reduced to subsp. rank (*teste* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 29, figs. 5, 44).

\***battlei confusa** Schuster. Piedmont and west. coastal plain, N. C., Ga., Ala.

*Ephuta battlei confusa* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 29 (in key), fig. 44. ♂.

\***battlei microcellaria** Schuster. N. J. (Cape May).

*Ephuta battlei microcellaria* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 29 (in key), fig. 44. ♂.

\***battlei transitionalis** Schuster. Transit. and U. Austr. Zones, Mass. to Va., Ohio.

*Ephuta battlei transitionalis* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 28 (in key), fig. 44. ♂.

\***californica** Schuster. Syn. of **argenteiceps** Schuster.

\***cephalotes** Schuster. N. Dak., S. Dak., Wyo., Ariz., west. Tex.

*Ephuta cephalotes* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 24 (in key), figs. 10, 20, 46. ♂.

\***coloradella** Schuster. Colo.

*Ephuta coloradella* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 32 (in key). ♀.

**conchate** Mickel. N. Y., Mich., Ill., Iowa, S. Dak., Nebr., Kans.

Taxonomy: Schuster, 1951. N. Y. Ent. Soc. Jour. 59:32 (in key). ♀.

**copano** (Blake). Mexico.

*Ephuta susura* (Melander), n. syn. (*teste* R. M. Schuster who has examined both types).

\***ecarinata ecarinata** Schuster. Tex.; Mexico.

*Ephuta ecarinata ecarinata* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 26 (in key). ♂.

\***ecarinata neomexicana** Schuster. N. Mex.

*Ephuta ecarinata neomexicana* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 26 (in key). ♂.

\***ecarinata pima** Schuster. Ariz.

*Ephuta ecarinata pima* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 26 (in key). ♂.

\***eurygnathus** Schuster. N. C. (Southern Pines).

*Ephuta eurygnathus* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 29 (in key), fig. 11. ♂.

\***floridana dietrichi** Schuster. Ala., Miss.

*Ephuta floridana dietrichi* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 32 (in key), figs. 35, 36. ♀.

\***floridana floridana** Schuster. Fla.

*Ephuta floridana floridana* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 25, 32 (in key). ♂ ♀.

\***grisea fuscosericea** Schuster. Alta., Mont., Utah, N. Dak.

*Ephuta grisea fuscosericea* Schuster, 1951. N. Y. Ent. Soc. Jour. 59:27 (in key), figs. 14, 15, 42. ♂.

**grisea grisea** Bradley, changed status. Delete Mont. and N. Dak. from range.

*Ephuta grisea* Bradley of Catalog, in part. Reduced to subsp. rank (*teste* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 27, fig. 21).

\***margueritae margueritae** Schuster. Fla.

*Ephuta margueritae margueritae* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 25, 30 (in key), figs. 17, 46. ♂ ♀.

\***margueritae xanthocephala** Schuster. Pa., N. C., Tenn.

*Ephuta margueritae xanthocephala* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 25, 30 (in key), figs. 25, 46. ♂ ♀.



- \**minuta minuta* Schuster. Tex. (Brownsville, Fedor, College Sta.).  
*Ephuta minuta minuta* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 33  
 (in key). ♀.
- \**minuta modesta* Schuster. Ariz. (Tempe).  
*Ephuta minuta modesta* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 32  
 (in key), figs. 31, 32. ♀.
- \**ocellaria* Schuster. Syn. of *psephenophila* Schuster.
- pauxilla pauxilla* Bradley, changed status. Minn. to Ala., east to Maine and Fla. (Almost certainly the male of *puteola* (Blake).)  
*Ephuta pauxilla* Bradley of Catalog, in part. Reduced to subsp. rank  
 (*teste* Schuster, 1951, N. Y. Ent. Soc. Jour. 59: 29, figs. 1, 12, 37, 43).
- \**pauxilla texanella* Schuster. Tex., La., Miss.  
*Ephuta pauxilla texanella* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 29  
 (in key), figs. 13, 43. ♂.
- \**psephenophila* Schuster. Ga. (Stone Mt.)  
*Ephuta psephenophila* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 25  
 (in key). ♂.  
 \**Ephuta ocellaria* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 36, fig. 18.  
 MS name changed to *psephenophila* (*teste* R. M. Schuster).
- rufisquamis* (André). South. Calif.
- \**sabaliana fattigi* Schuster. Ga. (Tifton).  
*Ephuta sabaliana fattigi* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 28  
 (in key). ♂.
- \**sabaliana sabaliana* Schuster. Fla.  
*Ephuta sabaliana sabaliana* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 28  
 (in key). ♂.  
 Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 225-226.
- scrupea* (Say). N. J. south to Ga. and Ala., Mich., Wis., Ohio, W. Va., Mo., Ark., Tex. Host: *Phanagenia bombycina* (Cr.).
- \**slossonae monochroa* Schuster. Tex. (Rock Island).  
*Ephuta slossonae monochroa* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 34 (in key). ♀.
- slossonae slossonae* (Fox), changed status. Fla.  
*Ephuta slossonae* (Fox). Reduced to subsp. rank (*teste* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 34).
- \**spinifera* Schuster. N. J. to Ga.  
*Ephuta spinifera* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 27, 34 (in key). ♂ ♀.
- \**stenognatha psephenophora* Schuster. North. Fla.  
*Ephuta stenognatha psephenophora* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 28. ♂.
- \**stenognatha stenognatha* Schuster. Cent. and south. Fla.  
*Ephuta stenognatha stenognatha* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 28 (in key), figs. 7, 8. ♂.
- susura* (Melander). Syn. of *copano* (Blake).
- tegulicia* Bradley. Ariz.
- \**tentativa* Schuster. Ga. (Atlanta, Ochlochnee).  
*Ephuta tentativa* Schuster, 1951. N. Y. Ent. Soc. Jour. 59: 34 (in key). ♀.
- \**tumacacori* Schuster. Ariz. (Tumacacori Mts.).  
*Ephuta tumacacori* Schuster, 1951. N. Y. Soc. Jour. 59: 30 (in key). ♀.

## Mutillidae of Uncertain Generic Position, p. 773

*Mutilla ajax*, *M. floridana*, and *M. trisignata* supposedly from Florida and described by Blake from the Harris Collection are not North American.



Fox (Ent. News 9:14, 1898) published on these three species and stated that *ajax* was a synonym of the African *Psammotherma flabellata* (Fabricius), *floridana* a synonym of the European *Dasylabris maura* (Linnaeus), and *trisignata* a synonym of the European *D. arenaria* (Fabricius).

*Sphaerophthalma* (!) *argentipilis* Provancher. Transf. to *Odontophopsis*, p. 756.

### Family RHOPALOSOMATIDAE

Genus RHOPALOSOMA Cresson, p. 773

Biology: Gurney, 1953. U. S. Natl. Mus. Proc. 103: 19-34, 3 pls.

### Family SCOLIIDAE

Taxonomy: Hurd, 1952. Calif. Ins. Survey Bul. 1: 141-152, 2 pls. (Calif. spp.).

SCOLIA subgenus SCOLIA Fabricius, pp. 774-775

*dubia monticola* Cameron. Host: *Cotinis texana* Casey.

*otomita* Saussure. Calif. (Mojave and Colorado Deserts). Host: Scarabaeid larvae in debris of wood-rat nest.

CAMPSOMERIS subgenus CAMPSOMERIS Guerin, pp. 775-776

*plumipes confluenta* (Say). West. N. Y.

*quadrinotata* (Fabricius). Mass.

*tolteca* (Saussure). Change p. 140 to p. 410 in orig. cit. of *dives* Provancher.

Genus CAMPSOSCOLIA Betrem, p. 776

\**Crioscolia* Bradley, 1950. Eos, Tomo extraord., p. 431.

Type: *Campsomeris (Trielis) flammicoma* Bradley. Orig. desig.

\**Dasyscolia* Bradley, 1950. Eos, Tomo extraord., p. 431.

Type: *Tiphia ciliata* Fabricius. Orig. desig.

*alcione* (Banks). (*Crioscolia*)

*flammicoma* (Bradley). (*Crioscolia*)

*octo-maculata hermione* (Banks). Change subsp. heading from *octomaculata hermione* to *octo-maculata hermione*. (*Campsoscolia*)

*octo-maculata octo-maculata* (Say). Change subsp. heading from *octo-maculata octomaculata* to *octo-maculata octo-maculata*; in orig. cit. change spelling from *octomaculata* to *viii.maculata*. (*Campsoscolia*)

\**Scolia octo-maculata* Say, 1825. American Entomology, pl. 29. Emend.

*octo-maculata texensis* (Saussure). Change subsp. heading from *octomaculata texensis* to *octo-maculata texensis*. (*Campsoscolia*)

*pollenifera* (Viereck). (*Campsoscolia*)

### Family SAPYGIDAE

Genus FEDTSCHENKIA Saussure, p. 777

Taxonomy: Bradley, 1955. Ent. News 66: 230-233.

*anthracina* (Ashmead). Wash., Colo., N. Mex.

\**Plesia (Myzine) nigropilosella* Cameron, 1908. Amer. Ent. Soc. Trans. 34: 237. ♀. (Syn. by Bradley, 1955. Ent. News 66: 232).

\**nigropilosella* (Cameron). Syn. of *anthracina* (Ashmead).

Genus SAPYGA Latreille, pp. 777-778

*centrata* Say. W. Va. On bark of *Pinus* containing nests of *Hoplitis (Alcidamea) t. truncata* (Cr.).

*loui* Krombein. N. J.

## Family FORMICIDAE

Morphology: Wilson, 1953. Quart. Rev. Biol. 28: 136-156, 10 figs. (polymorphism).

Taxonomy: W. M. Wheeler, 1920. Psyche 27: 46-55, fig. 3 (subfamilies).  
—W. L. Brown and Nutting, 1950. Amer. Ent. Soc. Trans. 75: 113-132, 2 pls. (wing venation).—W. L. Brown, 1954. Insectes Sociaux 1: 21-31, 1 fig.

Economics: O'Rourke, 1956. Insectes Sociaux 3: 107-118.

## Subfamily DORYLINAE

Biology: Schneirla, 1943. N. Y. Ent. Soc. Jour. 51: 236.—Schneirla, 1944. Op. cit. 52: 153-192, 2 figs.—Schneirla, 1944. Amer. Phil. Soc. Proc. 87: 438-457, 3 figs.—Schneirla, 1945. Biol. Bul. 88: 166-193.—Schneirla, 1947. Amer. Mus. Novitates 1336: 1-20, 2 figs.—Schneirla, 1948. Zoologica (New York) 33: 89-112, 4 figs.—Schneirla, 1948. Sci. American 178: 16-23.—Schneirla, 1949. Amer. Mus. Nat. Hist. Bul. 94: 1-82, 6 figs., 2 pls.—Schneirla, (1949) 1950. (Mex.) Inst. de Biol. An. 20: 371-384, 2 figs.—Schneirla and R. Z. Brown, 1950. Amer. Mus. Nat. Hist. Bul. 95: 269-353, 8 figs., 1 pl.—Schneirla and R. Z. Brown, 1952. Zoologica (New York) 37: 5-32.—Schneirla, R. Z. Brown, and F. C. Brown, 1954. Ecol. Monog. 24: 269-296. (New World.) Schneirla, 1956. Insectes Sociaux 3: 49-69, illus.

Revisions: Borgmeier, 1953. Studia Entomologica 2: 1-51, 35 figs.—Borgmeier, 1955. Op. cit. 3: 1-716, 87 pls. (New World).

## Genus NOMAMYRMEX Borgmeier

(= *Eciton* Subg. *Nomamyrmex* Borgmeier of Catalog, p. 779)

Raised to generic rank by Borgmeier, 1953 (Studia Entomologica 2: 4). Change type designation to *Eciton crassicornis* F. Smith = *Labidus esenbeckii* Westwood.

*crassicornis* (F. Smith). Delete.

\**crassicornis mordax* (Santschi). Syn. of *esenbeckii wilsoni* (Santschi).

*esenbeckii* (Westwood). Delete.

*esenbeckii wilsoni* (Santschi). Tex.; Mexico, Costa Rica. Typical *esenbeckii* (Westwood) is South American.

*Eciton* (*Nomamyrmex*) *esenbeckii* Westwood of Catalog, in part. *E. esenbeckii wilsoni* is a subsp. of *esenbeckii* not a syn. (teste Borgmeier, 1953. Studia Entomologica 2: 13).

*Eciton* (*Holopone*) *crassicornis mordax* Santschi, 1928. Deut. Ent. Ztschr., p. 415. (Syn. by Borgmeier, 1955. Entomologica 3: 139.)

## Genus LABIDUS Jurine

(= *Eciton* subg. *Labidus* Jurine of Catalog, p. 779)

Change type designation to "by monotypy."

*coecus* (Latreille). Change um to us in sp. heading.

Taxonomy: G. C. Wheeler, 1943. Ent. Soc. Amer. Ann. 36: 332, figs. 24-28 (larva).

## Genus NEIVAMYRMEX Borgmeier

(= *Eciton* subg. *Neivamyrmex* Borgmeier of Catalog, p. 780)

Raised to generic rank by Borgmeier, 1950 (Rev. de Ent. 21: 624.)

\**Woitkowskia* Enzmann, 1952. Iowa Acad. Sci. Proc. 59: 443.

Type: *Woitkowskia connectens* Enzmann = *Labidus walkerii* (Westwood). Orig. desig. (Syn. by Borgmeier, 1955. Studia Entomologica 3: 277.)

\***andrei** (Emery). Ariz., N. Mex.; Mexico.

*Eciton andrei* Emery, 1901. Soc. Ent. Ital. Bol. 33: 53. ♂.

*Eciton (Neivamyrmex) oslari* W. M. Wheeler (syn. by Borgmeier, 1953. Studia Entomologica 2: 19).

**arizonense** (W. M. Wheeler). Syn. of **swainsonii** (Shuckard).

**aztecus** (Forel). Syn. of **pilosus mexicanum** (F. Smith).

**californicus** (Mayr). Change **um** to **us** in sp. heading.

*Eciton (Neivamyrmex) californicum* var. *obscura* Forel (syn. by Borgmeier, 1955. Studia Entomologica 3: 517). Preocc.

Biology: Mallis, 1938. Sci. Monthly 47: 220-226.

**carolinensis** (Emery). ? Ariz., N. Mex. Change **se** to **sis** in sp. heading.

**commutatatum** of authors not Emery. Replaced by **fallax** Borgmeier.

\***fallax** Borgmeier. Ariz., Kans., La., Tex.; Mexico.

*Neivamyrmex fallax* Borgmeier, 1953. Studia Entomologica 2: 48, figs. 31, 33. ♀.

*Eciton (Neivamyrmex) commutatatum* of authors, not Emery of Catalog.

**fuscipennis** (W. M. Wheeler). Change **ne** to **nis** in sp. heading.

**leonardi** (W. M. Wheeler). Calif.; Lower Calif.

\**Eciton (Acamatus) peninsulare* Mann, 1926. Psyche 33: 98. ♀. (Syn. by Borgmeier, 1953. Studia Entomologica 2: 10).

**melanocephalus** (Emery). Guatemala. Change **um** to **us** in sp. heading.

\***microps** Borgmeier. Ariz. (Phoenix).

*Neivamyrmex microps* Borgmeier, 1955. Studia Entomologica 3: 298, 635, pl. 56, figs. 6, 10; pl. 80, fig. 4. ♂.

**minor** (Cresson). N. Mex., Calif.; Lower Calif. Change **us** to **or** in sp. heading.

**nigrescens** (Cresson). Mexico.

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 84.

Taxonomy: G. C. Wheeler, 1943. Ent. Soc. Amer. Ann. 36: 331, figs. 29-33 (larva).

**opacithorax** (Emery). Ariz., Calif.; Mexico, Costa Rica.

*Eciton (Neivamyrmex) opacithorax castaneum* Borgmeier, 1948. Rev. de Ent. 19: 191-194, figs. 1-9. ♀. (Syn. by Borgmeier, 1955. Studia Entomologica 3: 502.)

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 84.

**oslari** (W. M. Wheeler). Syn. of **andrei** (Emery).

**pauxillus** (W. M. Wheeler). Tex.; Mexico. Change **um** to **us** in sp. heading.

**peninsulare** (Mann). Syn. of **leonardi** (W. M. Wheeler).

**pilosus mandibularis** (M. R. Smith). Ariz. (Kits Peak in Baboquivari Mts., 4050 ft. and San Bernardino Ranch in Cochise County, 3750 ft.) Change **um** to **us** in sp. heading and **re** to **ris** in ssp. heading.

**pilosus mexicanus** (F. Smith), changed status. Miss. to Ark., Okla., Tex. south to Centr. Amer. A syn. of **pilosus** in Catalog.

*Eciton clavicornis* Norton.

*Eciton subsulcatum* Mayr.

\**Eciton (Acamatus) aztecum* Forel, 1901. Mitt. Nat. Mus. Hamburg 18: 49. ♀. (Syn. by Borgmeier, 1936. Inst. Biol. Veg. Arg. 3: 60).

**pilosus pilosus** F. Smith. Delete from Catalog; exotic subspecies.

*Labidus Mexicanus* F. Smith. A subsp. of **pilosus** F. Smith (*teste* Borgmeier, 1953. Studia Entomologica 2: 17).

\***swainsonii** (Shuckard). Ariz., Calif., N. Mex., Tex. to Argentina.

*Labidus swainsonii* Shuckard, 1840. Ann. Nat. Hist. 5: 201. ♂.

*Eciton (Neivamyrmex) arizonense* W. M. Wheeler (syn. by Borgmeier, 1955. Studia Entomologica 3: 454.)



Unrecognized Forms of *Eciton* subgenus *Neivamyrmex* Borgmeier, p. 781

Delete from Catalog and replace with Unrecognized Forms of Dorylinae. Place *Eciton californicum* var. *obscura* (Forel) as syn. of *californicus* (Mayr), p. 780, leaving *Myrmica* (*Monomarium* (!)) *coeca* Buckley under above new heading.

## Subfamily CERAPACHYINAE

Taxonomy: W. M. Wheeler, 1920. *Psyche* 27: 50-51.—Donisthorpe, 1921. London Ent. Soc. Proc., pp. 45-47.—W. M. Wheeler, 1922. Amer. Mus. Nat. Hist. Bul. 45: 51.—Morley, 1939. Soc. Ent. de France Bul. 44: 114-118, figs. 1, 5.—Reid, 1941. Roy. Ent. Soc. London, Trans. 91: 421-422.—Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 58.—G. C. Wheeler, 1950. *Psyche* 57: 102-113, 2 figs., 1 pl. (larvae).—Kuznezov, 1952. *Dusenja* 3: 115.—W. L. Brown, 1954. *Insectes Sociaux* 1: 26.

**CERAPACHYS** subgenus **PARASYSCIA** Emery, p. 782

*augustae* W. M. Wheeler.

Taxonomy: G. C. Wheeler, 1950. *Psyche* 57: 106-107, fig. 1 (larva).

**ACANTHOSTICHUS** subgenus **CTENOPYGA** Ashmead, p. 782

Change type designation to read *Ctenopyga townsendi* Ashmead) = *Acanthostichus texanus* Forel. Monob.

*texanus* Forel. Mexico.

\**Ctenopyga townsendi* Ashmead, 1906. Ent. Soc. Wash. Proc. 8: 29-30, fig. 4. ♀ ♂. (Syn. by M. R. Smith, 1955. Brooklyn Ent. Soc. Bul. 50: 49.)

*townsendi* (Ashmead). Syn. of *texanus* Forel.

## Subfamily PONERINAE

Biology: W. M. Wheeler, 1926. *Ants, Their Structure, Development and Behavior*, pp. 225-245, illus.

Taxonomy (larvae): G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 111-144, 2 figs., 5 pls.—Op. cit., 48: 604-672, 2 figs., 6 pls.

**Genus STIGMATOMMA** Roger, p. 782

Taxonomy: W. L. Brown, 1949. *Psyche* 56: 81-88; fig. 1.

*pallipes pallipes* (Haldeman). Ariz., N. Mex., Tex.

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 84.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 114; text fig. 1, pl. 1, figs. 8-11 (larva).

*pallipes subterranea* Creighton. Tex.

\**trigonignatha* (W. L. Brown). N. C. (Concord).

*Amblyopone* (*Stigmatomma*) *trigonignatha* W. L. Brown, 1949. *Psyche* 56: 81-84, fig. 1. ♀.

**Genus PLATYTHYREA** Roger, p. 783

*punctata* (F. Smith)

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 119 (larva).

**ECTATOMMA** subgenus **ECTATOMMA** F. Smith, p. 783

*tuberculatum* (Olivier)

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 129-133, pl. 4, figs. 15-26 (larva).

**ECTATOMMA** subgenus **PARECTATOMMA** Emery, p. 783

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 133-134, pl. 5, figs. 13-16 (larvae).



**Genus PROCERATIUM Roger, p. 784**

**californicum** Cook. Calif. (Glenwood, Santa Cruz Mts.).

*Procratium* (!) **californicum** Cook, 1953. The Ants of California. Palo Alto, pps. 45-46, figs. ♂.

**crassicornae** Emery. Syn. of **silaceum** Roger.

**crassicornae** var. **vestitum** Emery. Syn. of **silaceum** Roger.

**croceum** (Roger)

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 135, pl. 5, figs. 20-27 (larva).

**silaceum** Roger, changed status. Mass.

*Proceratium silaceum silaceum* Roger. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 40).

*Proceratium crassicornae* Emery (syn. by Creighton, *loc. cit. supra*).

*Proceratium crassicornae* var. **vestitum** Emery (syn. by Creighton, *loc. cit. supra*).

*Proceratium silaceum rugulosum* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 137, pl. 5, figs. 17-19 (larva).

**silaceum rugulosum** W. M. Wheeler. Syn. of **silaceum** Roger.

**silaceum silaceum** Roger. Raised to sp. rank.

**Genus DISCOTHYREA Roger, pp. 784-785**

Taxonomy: Borgmeier, 1949. Rev. Brasil de Biol. 9: 205.

**testacea** Roger. Fla., Ga., N. C.

Taxonomy: M. R. Smith and Wing, 1954. N. Y. Ent. Soc. Jour. 62: 110-112, figs. 1, 2. ♀ ♀.

**NEOPONERA subgenus NEOPONERA Emery, p. 785**

**villosa** (Fabricius).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 615, pl. 3, figs. 11, 12, 14, 18 (larva).

**PACHYCONDYLA subgenus PACHYCONDYLA F. Smith, p. 785**

**harpax** (Fabricius), changed status. So. Amer. Delete sentence "*Harpax harpax* (Fabricius), 1804, occurs in the Neotropical Region."

*Pachycondyla* (*Pachycondyla*) **harpax montezumia** F. Smith. A syn. of **harpax** (*teste* W. L. Brown, 1950. Wasmann Jour. Biology 8: 247).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 617-618 (larva).

**harpax montezumia** F. Smith. Syn. of **harpax** (Fabricius).

**EUPONERA subgenus BRACHYPONERA Emery, pp. 785-786**

**solitaria** (F. Smith).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 49: 629 (larva).

**EUPONERA subgenus TRACHYMESOPUS Emery, p. 786**

**gilva** (Roger).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 625-627, pl. 4, figs. 8-16 (larva).

**stigma** (Fabricius).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 627 (larva).

**Genus PONERA Latreille, pp. 786-787**

**coarctata pennsylvanica** Buckley. Colo., N. Dak.

Biology: Headley, 1952. Ent. Soc. Amer. Ann. 45: 436-438.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 631, pl. 5, figs. 18-21, 28-32 (larva).

**ergatandria** Forel. Ariz., Colo., N. Mex.

**opaciceps** Mayr. Argentina.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 634 (larva).

**trigona opacior** Forel, changed status.

*Ponera trigona* var. *opacior* Forel. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 48; pl. 8, figs. 1-4).

#### LEPTOGENYS subgenus LOBOPELTA Mayr, p. 787

**elongata** (Buckley).

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 641, pl. 6, figs. 8-10 (larva).

#### Genus ODONTOMACHUS Latreille, pp. 787-788

Biology: W. M. Wheeler, 1922. Amer. Mus. Nat. Hist. Bul. 45: 99-103.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 646, pl. 6, figs. 22-29 (larvae).

**haematoda clarus** Roger.

Taxonomy: G. C. and J. Wheeler, 1952. Amer. Midland Nat. 48: 648-650 (larva).

**haematoda insularis** Guérin. Ala.

#### \*Subfamily PSEUDOMYRMECINAE

(= Subfamily *Leptaleinae* of Catalog)

#### \*Genus PSEUDOMYRMEX Lund

(= *Leptalea* Erichson, p. 788)

*Pseudomyrmex* Lund, (Latreille, ms.), 1831 (Nov.). Notizen aus dem Gebiete der Natur und Heilkunde 32 (7): 106.

Type: *Formica gracilis* Fabricius. Desig. by M. R. Smith, 1952. Change *a* to *us* in sp. headings.

Taxonomy: Creighton, 1955. N. Y. Ent. Soc. Jour. 63: 19-20 (workers).

—G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 379 (larvae).

\***apache** Creighton. Ariz., Calif., Tex.; Mexico.

*Pseudomyrmex apache* Creighton, 1953 (1952). Psyche 59: 134-139, pl. 12, figs. 1-7. ♀ ♀ ♂.

Biology: Creighton, 1954. Psyche 61: 9-15, fig. 1.

Taxonomy: G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 380 (larva).

**elongatus** (Mayr). Tex.; Mexico.

Taxonomy: G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 384 (larva).

**flavidulus** (F. Smith)

Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 80-82.

**pallidus** (F. Smith)

Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 80-82.—G. C. and J. Wheeler, 1956. Ent. Soc. Amer. Ann. 49: 386 (larva).

#### Unrecognized Forms of Genus *Leptalea* Erichson, p. 788

Delete this heading from Catalog and also the first line under it and replace with a new heading, Unrecognized Forms of Subfamily Pseudomyrmecinae.

## Subfamily MYRMICINAE

**MYRMICA subgenus MYRMICA Latreille, pp. 789-791**

Taxonomy: Weber, 1950. Ent. Soc. Amer. Ann. 43: 189-226, fig. 1.—  
G. C. and J. Wheeler, 1952. Psyche 59: 112-123, figs. 1-15.  
(larvae).—Yarrow, 1955. Roy. Ent. Soc. London, Proc., Ser. B,  
24: 113-115 (genotype).

**brevinodis brevinodis** Emery. Rocky Mt. Region south to N. Mex.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 116 (larva).

**brevinodis brevispinosa** W. M. Wheeler. Mont., Utah, S. Dak., Wyo.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 117 (larva).

**brevinodis discontinua** Weber. N. Mex., Utah.

**brevinodis kuschei** W. M. Wheeler. Quebec (James Bay).

**brevinodis sulcinodoides** Emery. N. Mex.

**laevinodis** Nylander. Maine, (introduced).

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 58: 119 (larva).

**lobicornis fracticornis** Emery.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 117 (larva).—Cole,  
1953. Tenn. Acad. Sci. Jour. 28: 242-243.

**punctiventris pinetorum** W. M. Wheeler. Mass.

**sabuleti americana** Weber.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 116 (larva).

**sabuleti hamulata** Weber. Mts. of Colo., Utah and N. Mex.

**scabrinodis mexicana** W. M. Wheeler. ? Utah.

**schencki emeryana** Forel.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 114, 117, figs. 1-3,  
4-5, 6-15 (larva).—M. R. Smith, 1954. Brooklyn Ent. Soc. Bul.  
49: 138-140. ♀ ♀.

**schencki tahoënsis** W. M. Wheeler. Mont., Wyo., Utah and Ariz. to B. C.  
and Calif.

\***striolagaster** Cole. Ariz., N. Mex., Tex.

*Myrmica striolagaster* Cole, 1953. Tenn. Acad. Sci. Jour. 28: 81. ♀.

Unrecognized Forms of *Myrmica* subgenus *Myrmica* Latreille, p. 791

Delete this heading from Catalog, and also the first line under it.  
Transfer *Myrmica dimidiata* Say to p. 833 under Unrecognized Forms of  
Myrmicinae.

**Genus MANICA Jurine**

(= *Myrmica* subg. *Manica* Jurine of Catalog, p. 791)

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 123 (larvae).

Raised to generic rank (*teste* Weber, 1947. Ent. Soc. Amer. Ann. 40:  
439).

**aldrichi** (W. M. Wheeler). Syn. of **hunteri** (W. M. Wheeler)

**hunteri** (W. M. Wheeler).

*Myrmica (Manica) aldrichi* W. M. Wheeler (syn. by Cole, 1956. Tenn.  
Acad. Sci. Jour. 31: 262).

**mutica** (Emery).

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 243.

**POGONOMYRMEX subgenus POGONOMYRMEX Mayr, pp. 791-794**

Taxonomy: G. C. and J. Wheeler 1952. Psyche 59: 106-111, pl. 11, figs.  
1-22 (larvae).—Cole, 1954. Tenn. Acad. Sci. Jour. 29: 117-119.



- \***anergismus** Cole. N. Mex. (15 miles east of Silver City). Host: *Pogonomyrmex barbatus rugosus* Emery.
- Pogonomyrmex (Pogonomyrmex) anergismus** Cole, 1954. Tenn. Acad. Sci. Jour. 29: 115-116. Alate ♀ ♂.
- apache** W. M. Wheeler.
- Pogonomyrmex (Pogonomyrmex) sancti-hyacinthi** W. M. Wheeler (syn. by Cole, 1954. Tenn. Acad. Sci. Jour. 29: 266-267, (first description of ♀ ♂).
- badius** (Latreille).
- Biology: Van Pelt, 1953. Tenn. Acad. Sci. Jour. 28: 164-168.
- barbatus barbatus** (F. Smith).
- Pogonomyrmex (Pogonomyrmex) barbatus** var. *molefaciens* (Buckley) syn. by McCook, 1879. The Natural History of the Agricultural Ant of Texas, p. 208.
- Taxonomy: Creighton, 1950, Harvard Univ., Mus. Compar. Zool. Bul. 104: 116-119.—G. C. and J. Wheeler, 1952. Psyche 59: 107, pl. 11, figs. 14-22 (larva).
- Economics: Cassidy, Romney, et al. 1950. U. S. Dept. Agr. Cir. 842, p. 15.
- barbatus curvispinosus** Cole. Syn. of **barbatus fuscatus** Emery.
- barbatus fuscatus** Emery.
- Pogonomyrmex (Pogonomyrmex) barbatus curvispinosus** Cole (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 119).
- Pogonomyrmex (Pogonomyrmex) barbatus** var. *marfensis* W. M. Wheeler (syn. by Creighton, loc. cit. supra).
- Pogonomyrmex (Pogonomyrmex) barbatus** var. *nigrescens* W. M. Wheeler (syn. by Creighton, loc. cit. supra).
- barbatus rugosus** Emery.
- Pogonomyrmex (Pogonomyrmex) similis** Olsen (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 120).
- \***barbatus spadix** Cook. N. Mex. (25 miles east of Deming).
- Pogonomyrmex barbatus spadix** Cook, 1953. The Ants of California, pp. 98-99, 3 figs., ♀, no description. Palo Alto.
- barbatus** var. *marfensis* W. M. Wheeler. Syn. of **barbatus fuscatus** Emery.
- barbatus** var. *molefaciens* (Buckley). Syn. of **barbatus barbatus** (F. Smith).
- barbatus** var. *nigrescens* W. M. Wheeler. Syn. of **barbatus fuscatus** Emery.
- californicus barnesi** M. R. Smith. A subsp. of **maricopa** W. M. Wheeler.
- californicus estebanians** Pergande, changed status.
- Pogonomyrmex (Pogonomyrmex) californicus** var. *estebanians* Pergande. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 127).
- californicus longinodis** Emery. Raised to sp. rank.
- californicus maricopa** W. M. Wheeler. A subsp. of **maricopa** W. M. Wheeler.
- \***californicus nitratus** Cook. Ariz. (Douglas).
- Pogonomyrmex californicus nitratus** Cook, 1953. The Ants of California, pp. 99-100, 3 figs. ♀. Palo Alto.
- \***californicus sinaloanus** Olsen. Syn. of **maricopa maricopa** W. M. Wheeler.
- californicus** var. *estebanians* Pergande. A subsp. of **californicus** (Buckley).
- californicus** var. *hindleyi* Forel. Raised to sp. rank.
- comanche** W. M. Wheeler. A subsp. of **occidentalis** (Cresson).
- desertorum desertorum** W. M. Wheeler, changed status.
- Pogonomyrmex (Pogonomyrmex) desertorum** W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 124).



*desertorum ferrugineus* Olsen, changed status.

*Pogonomyrmex (Pogonomyrmex) desertorum* var. *ferrugineus* Olsen. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 124).

*desertorum tenuispina* Forel, changed status.

*Pogonomyrmex (Pogonomyrmex) desertorum* var. *tenuispina* Forel. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 124).

*desertorum* var. *ferrugineus* Olsen. A subsp. of *desertorum* W. M. Wheeler.

*desertorum* var. *tenuispina* Forel. A subsp. of *desertorum* W. M. Wheeler.

*hindleyi* Forel, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus* var. *hindleyi* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 125).

*huachucanus* W. M. Wheeler. N. Mex.

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 119.

Taxonomy: Creighton, 1952. Psyche 59: 76-81, pl. 8, 6 figs. ♀ ♀ ♂.

*longinodis* Emery, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus longinodis* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 126).

*maricopa barnesi* M. R. Smith, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus barnesi* M. R. Smith. A subsp. of *maricopa*, not of *californicus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 127).

*maricopa maricopa* W. M. Wheeler, changed status.

*Pogonomyrmex (Pogonomyrmex) californicus maricopa* W. M. Wheeler. A subsp. of *maricopa*, not of *californicus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 126).

\**Pogonomyrmex californicus sinaloanus* Olsen, 1934. Harvard Univ., Mus. Compar. Zool. Bul. 77: 504, ♀ (syn. by Cole 1954. Tenn. Acad. Sci. Jour. 29: 120).

*occidentalis comanche* W. M. Wheeler, changed status.

*Pogonomyrmex (Pogonomyrmex) comanche* W. M. Wheeler. A subsp. of *occidentalis* (Cresson) (*teste* Creighton 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 128).

*Pogonomyrmex (Pogonomyrmex) occidentalis* var. *utahensis* Olsen (syn. by Creighton, *loc. cit. supra*).

*occidentalis occidentalis* (Cresson).

*Pogonomyrmex (Pogonomyrmex) salinus* Olsen (syn. by M. R. Smith, 1953. Brooklyn Ent. Soc. Bul. 48: 131).

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 110, pl. 11, figs. 1-13 (larva).

*occidentalis owyhee* Cole. Raised to sp. rank.

*occidentalis* var. *utahensis* Olsen. Syn. of *occidentalis comanche* W. M. Wheeler.

*owyhee* Cole, changed status.

*Pogonomyrmex (Pogonomyrmex) occidentalis owyhee* Cole. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 130).

*salinus* Olsen. Syn. of *occidentalis occidentalis* (Cresson).

*sancti-hyacinthi* W. M. Wheeler. Syn. of *apache* W. M. Wheeler.

*similis* Olsen. Syn. of *barbatus rugosus* Emery.

#### POGONOMYRMEX subgenus EPHEBOMYRMEX W. M. Wheeler, p. 794

Biology: Creighton, 1956. Psyche 63: 61-63.

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 111-112 (larvae).

**imberbiculus** W. M. Wheeler. Ariz., Calif.; Mexico.

*Pogonomymex (Epebomyrmex) townsendi* W. M. Wheeler. (Syn. by Creighton, 1956. Psyche 63: 54.)

Taxonomy: G. C. and J. Wheeler, 1952. Psyche 59: 111 (larva.)—Creighton, 1956. Psyche 63: 63, fig. 1. ♀.

**pima** W. M. Wheeler. Mexico.

**Genus STENAMMA Westwood, pp. 794-795**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 50-52, pl. 1, figs. 1-13 (larvae). M. R. Smith, 1957. Amer. Midland Nat. 57: 133-174, 4 pls., (rev.).

**brevicorne** (Mayr), changed status. N. S., Que., Ont. to Va. and west to Minn., Nebr.

*Stenamma brevicorne brevicorne* (Mayr). Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 163).

*Stenamma nearcticum* Mayr. (syn. by M. R. Smith, *loc. cit. supra*). ♂. (♀ ♂ misdet.).

**brevicorne brevicorne** (Mayr). Raised to sp. rank.

**brevicorne diecki** Emery. Raised to sp. rank.

**brevicorne heathi** W. M. Wheeler. Raised to sp. rank.

**brevicorne impar** Forel. Raised to sp. rank.

**brevicorne impressum** Emery. Syn. of *diecki* Emery.

**brevicorne schmittii** W. M. Wheeler. Raised to sp. rank.

**brevicorne sequoiarum** W. M. Wheeler. Raised to sp. rank.

\***carolinense** M. R. Smith. N. C. (Hoffman).

*Stenamma carolinense* M. R. Smith, 1951. Ent. Soc. Wash. Proc. 53: 156-158, figs. 1, 2. ♀.

**diecki** Emery, changed status. Canada and most of U. S. except extreme Central States and a few of the Southern States.

*Stenamma brevicorne diecki* Emery. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 158).

*Stenamma brevicorne impressum* Emery (syn. by M. R. Smith, *loc. cit. supra*).

Biology: Cole, 1950. Tenn. Acad. Sci. Jour. 25: 297.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 50, pl. 1, figs. 1-13 (larva).

**heathi** W. M. Wheeler, changed status. Calif., Nev.

*Stenamma brevicorne heathi* W. M. Wheeler. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 154).

\***huachucanum** M. R. Smith. Ariz.

*Stenamma huachucanum* M. R. Smith, 1957. Amer. Midland Nat. 57: 153. ♀.

**impar** Forel, changed status. Mass. to Ga. west to N. Dak. and Mo.

*Stenamma brevicorne impar* Forel. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 150).

\***meridionale** M. R. Smith. Va., Mo., Ill., south to S. C. and Ark.

*Stenamma meridionale* M. R. Smith, 1957. Amer. Midland Nat. 57: 169. ♀, ♀.

**nearcticum** Mayr. Syn. of *brevicorne* (Mayr).

\***occidentale** M. R. Smith. B. C. to Baja Calif., east to Idaho, Colo., N. Mex.

*Stenamma occidentale* M. R. Smith, 1957. Amer. Midland Nat. 57: 146. ♀, ♀, ♂.

**schmittii** W. M. Wheeler, changed status. Maine to N. C. west to Minn. and Mo.

*Stenamma brevicorne schmittii* W. M. Wheeler. Raised to sp. rank (*teste* M. R. Smith, 1957. Amer. Midland Nat. 57: 142).

*sequoiarum* W. M. Wheeler, changed status.

*Stenamma brevicorne sequoiarum* W. M. Wheeler. Raised to sp. rank (teste M. R. Smith, 1957. Amer. Midland Nat. 57: 156). ,

**APHAENOGASTER subgenus ATTOMYRMA Emery, pp. 795-798**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 54-62, pl. 2, figs. 1-20 (larvae).

*ashmeadi* Emery, changed status. Ala.

*Aphaenogaster (Attomyrma) treatae ashmeadi* Emery. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus., Compar. Zool. Bul. 104: 142).

*Aphaenogaster (Attomyrma) treatae harnedi* W. M. Wheeler (syn. by Creighton, loc. cit. supra).

*boulderensis boulderensis* M. R. Smith. Tex.

*flemingi* M. R. Smith, changed status.

*Aphaenogaster (Attomyrma) texana flemingi* M. R. Smith. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 143).

*floridana* M. R. Smith. Ala.

*fulva* Roger, changed status.

*Aphaenogaster (Attomyrma) fulva fulva* Roger. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 143).

*fulva aquia* (Buckley). Transf. to Unrecognized Forms of Myrmicinae, p. 833, as *Myrmica (Monomarium (!)) aquia* Buckley.

*fulva aquia* var. *picea* (Emery). A subsp. of *rudis* (Emery).

*fulva fulva* Roger. Raised to sp. rank. Colo., Fla.

*fulva rudis* Emery. A subsp. of *rudis* Emery.

\**huachucana crinimera* Cole. N. Mex. (Bandelier Natl. Mon.).

*Aphaenogaster (Allomyrma (!)) huachucana crinimera* Cole, 1953. Tenn. Acad. Sci. Jour. 28: 82, fig. 1, a-d. ♀ ♀ ♂.

*huachucana huachucana* Creighton, changed status.

*Aphaenogaster (Attomyrma) huachucana* Creighton. Reduced to subsp. rank (teste Cole, 1953. Tenn. Acad. Sci. Jour. 28: 82).

Biology and Taxonomy: Creighton, 1951. Psyche 58: 89-99, pl. 7, figs. 1-6. ♀ ♀ ♂.

*lamellidens* Mayr.

*Aphaenogaster (Attomyrma) lamellidens* var. *nigripes* M. R. Smith. (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 144).

*macrospina* M. R. Smith, changed status.

*Aphaenogaster (Attomyrma) texana macrospina* M. R. Smith. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 145).

*miamiana* W. M. Wheeler, changed status.

*Aphaenogaster (Attomyrma) texana miamiana* W. M. Wheeler. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 145).

*patruelis bakeri* (W. M. Wheeler). Delete statement concerning *A. patruelis patruelis*.

\**patruelis patruelis* Forel. Guadeloupe Is., Lower Calif.; Coastal Islands of Calif.

*Aphaenogaster patruelis* Forel, 1886. Soc. Ent. de Belg. Ann. 30:41.

*Aphaenogaster (Attomyrma) patruelis willowsi* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 146).



*patruelis willowsi* W. M. Wheeler. Syn. of *patruelis patruelis* Forel.

*rudis rudis* Emery, changed status. Ala., Fla., Colo.

*Aphaenogaster (Attomyrma) fulva rudis* Emery. A subsp. of *rudis*, not of *fulva* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 147-148).

Biology: Talbot, 1951. Ent. Soc. Amer. Ann. 44: 302-307.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 56, pl. 2, figs. 1-20 (larva).

*rudis picea* Emery, changed status.

*Aphaenogaster (Attomyrma) fulva aquia* var. *picea* (Emery). A subsp. of *rudis* not a var. of *fulva aquia* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 148).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 57-60 (larva).

*subterranea borealis* W. M. Wheeler. Syn. of *subterranea occidentalis* (Emery).

*subterranea occidentalis* (Emery).

*Aphaenogaster (Attomyrma) subterranea borealis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 150).

*Aphaenogaster (Attomyrma) subterranea valida* var. *manni* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 61 (larva).

*subterranea valida* W. M. Wheeler. Rocky Mt. Region from Colo. to B. C. and west to mts. of Utah.

*subterranea valida* var. *manni* W. M. Wheeler. Syn. of *subterranea occidentalis* Emery.

*tennesseensis* (Mayr). Ala., Fla., S. Dak.

*Aphaenogaster (Attomyrma) tennesseensis* var. *ecalcarata* (Emery) (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 151).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 61-62 (larva).

*texana carolinensis* W. M. Wheeler, changed status.

*Aphaenogaster (Attomyrma) texana* var. *carolinensis* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 153).

*texana flemingi* M. R. Smith. Raised to sp. rank.

*texana macropsina* M. R. Smith. Raised to sp. rank.

*texana texana* (Emery). Tenn.

*Aphaenogaster (Attomyrma) texana* var. *furvescens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 152).

*Aphaenogaster (Attomyrma) texana* var. *silvestrii* Menozzi (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 62 (larva).

*texana* var. *carolinensis* W. M. Wheeler. A subsp. of *texana* (Emery).

*texana* var. *furvescens* W. M. Wheeler. Syn. of *texana texana* (Emery).

*texana* var. *miamiana* W. M. Wheeler. Raised to sp. rank.

*texana* var. *silvestrii* Menozzi. Syn. of *texana texana* (Emery).

*treatae ashmeadi* Emery. Raised to sp. rank.

*treatae harnedi* W. M. Wheeler. Syn. of *ashmeadi* Emery.



**treatae pluteicornis** G. C. and E. W. Wheeler.

*Aphaenogaster (Attomyrma) treatae pluteicornis* var. *oklahomensis* G. C. and E. W. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 154).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 62 (larva).

**treatae pluteicornis** var. *alabamensis* G. C. and E. W. Wheeler. Syn. of *treatae treatae* Forel.

**treatae pluteicornis** var. *oklahomensis* G. C. and E. W. Wheeler. Syn. of *treatae pluteicornis* G. C. and E. W. Wheeler.

**treatae treatae** Forel. Fla.

*Aphaenogaster (Attomyrma) treatae pluteicornis* var. *alabamensis* G. C. and E. W. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 153).

*Aphaenogaster (Attomyrma) treatae wheeleri* Mann (syn. by Creighton, loc. cit. supra).

Biology: Talbot, 1954. Mich. Univ., Contrib. Lab. Vertebr. Biol. 69: 1-9.

**treatae wheeleri** Mann. Syn. of *treatae treatae* Forel.

**uinta** W. M. Wheeler. Nev.

Unrecognized Forms of *Aphaenogaster* subgenus *Attomyrma* Emery, p. 798

Delete this heading from Catalog, and also the first line under it. Transfer *Myrmica opposita* Say to Unrecognized Forms of *Myrmicinae*, p. 833.

#### Genus **NOVOMESSOR** Emery, pp. 798-799

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 79, pl. 1, figs. 26-31 (larvae).

**albisetosus** (Mayr). Mexico.

Biology: Creighton, 1955. Psyche 62: 89-97.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 70, pl. 2, figs. 26-31 (larva).

**cockerelli** (André). Nev., Tex.

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 243.—Creighton, 1955. Psyche 62: 89-97.

#### Genus **VEROMESSOR** Forel, p. 799

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 1-18.

Taxonomy: M. R. Smith, 1956. Pan-Pacific Ent. 32: 36-37 (key to workers of U. S. spp.).

**andrei** (Mayr), changed status. Oreg.; Lower Calif.

*Veromessor andrei andrei* (Mayr). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 158).

*Veromessor andrei flavus* W. M. Wheeler and Creighton (syn. by Creighton op. cit., p. 159 under *andrei castaneus*).

*Veromessor andrei castaneus* W. M. Wheeler and Creighton (syn. by Creighton, 1953. Amer. Mus. Novitates 1612: 3).

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 2-4.

**andrei andrei** (Mayr). Raised to sp. rank.

**andrei castaneus** W. M. Wheeler and Creighton. Syn. of **andrei** (Mayr).

**andrei flavus** W. M. Wheeler and Creighton. Syn. of **andrei** (Mayr).

**chamberlini** (W. M. Wheeler). Calif. and coastal islands of Calif.

\***lariversi** M. R. Smith. Calif., Nev.

*Veromessor lariversi* M. R. Smith, 1951. Great Basin Nat. 11: 94-96. ♂.

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 5-6.

Taxonomy: Cole, 1955. Tenn. Acad. Sci. Jour. 30: 51-52. ♀.

**lobognathus** (Andrews). ? Mo., Nev.

Biology: Gregg, 1955. Psyche 62: 45-51.

**pergandei** (Mayr). Nev.; Lower Calif.

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 7-17.

**\*stoddardi chicoensis** M. R. Smith. Calif. (Chico).

*Veromessor stoddardi chicoensis* M. R. Smith, 1956. Pan-Pacific Ent. 32: 36-38. ♀.

**stoddardi stoddardi** (Emery), changed status.

*Veromessor stoddardi* (Emery). Reduced to subsp. rank (*teste* M. R. Smith, 1956. Pan-Pacific Ent. 32: 37).

Biology: Creighton, 1953. Amer. Mus. Novitates 1612: 17-18.

#### **PHEIDOLE subgenus PHEIDOLE Westwood, pp. 799-806**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 70-80, pl. 3, figs. 1-14 (larvae).—Creighton and Gregg, 1955. Univ. Colo. Studies, Biol. Ser. 3: 1-46, 10 figs.

**bahai** (Forel). N. C. (Faisons). Transf. from Unrecognized Forms of Myrmicinae, p. 833.

**barbata** W. M. Wheeler. Ariz.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 1-3, fig. 1. ♀ 2f.

**bicarinata bicarinata** Mayr. Ariz., Colo., Nev., ? N. Mex., Utah.

*Pheidole hayesi* M. R. Smith (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 170).

**bicarinata buccalis** W. M. Wheeler, changed status. South. Utah each to Tex.

*Pheidole (Pheidole) vinelandica buccalis* W. M. Wheeler. A subsp. of *bicarinata*, not of *vinelandica* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 171).

*Pheidole (Pheidole) vinelandica longula* var. *castanea* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Pheidole (Pheidole) vinelandica longula* var. *huachucana* M. R. Smith (a substitute name for *castanea* W. M. Wheeler).

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 297.

**bicarinata longula** Emery, changed status. N. Mex.

*Pheidole (Pheidole) vinelandica longula* Emery. A subsp. of *bicarinata* not of *vinelandica* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 171).

**bicarinata vinelandica** Forel, changed status. Fla.

*Pheidole (Pheidole) vinelandica vinelandica* Forel. A subsp. of *bicarinata* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 172).

*Pheidole (Pheidole) vinelandica laeviuscula* Emery (syn. by Creighton, *loc. cit. supra*).

**californica californica** Mayr.

*Pheidole (Pheidole) californica* var. *satura* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ. Mus., Compar. Zool. Bul. 104: 173).

*Pheidole (Pheidole) californica* var. *incenata* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

**californica oregonica** Emery.

*Pheidole (Pheidole) californica* var. *hagermani* Cole (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 173).

**californica shoshoni** Cole, changed status.

*Pheidole (Pheidole) californica* var. *shoshoni* Cole. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 174).

**californica** var. *hagermani* Cole. Syn. of *californica oregonica* Emery.

**californica** var. *incenata* W. M. Wheeler. Syn. of *californica californica* Mayr.

**californica** var. *satura* W. M. Wheeler. Syn. of *californica californica* Mayr.

*californica* var. *shoshoni* Cole. A subsp. of *californica* Mayr.

\**carbonaria* Pergande. Syn. of *tepicana* Pergande.

*cerebrosior* W. M. Wheeler, changed status. Ariz., Calif., N. Mex.; Mexico, Lower Calif.

*Pheidole* (*Pheidole*) *vinelandica cerebrosior* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 175).

Taxonomy: Creighton and Gregg, 1955. Univ. of Colo. Studies, Series 3: 3-5, fig. 2. 24.

*ceres* W. M. Wheeler.

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 297.

*cockerelli* W. M. Wheeler. Tex.

*crassicornis crassicornis* Emery.

*Pheidole* (*Pheidole*) *crassicornis* var. *diversipilosa* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 175).

*crassicornis porcula* W. M. Wheeler. Raised to sp. rank.

*crassicornis porcula* var. *tetra* W. M. Wheeler. A subsp. of *crassicornis* Emery.

*crassicornis tetra* W. M. Wheeler, changed status. Tex. to Ariz.

*Pheidole* (*Pheidole*) *crassicornis porcula* var. *tetra* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 176).

*crassicornis vallicola* W. M. Wheeler. Raised to sp. rank.

*crassicornis* var. *diversipilosa* W. M. Wheeler. Syn. of *crassicornis crassicornis* Emery.

\**creightoni* Gregg. (In subarmata group.) Oreg. (3 miles east of Apple-gate), Nev.

*Pheidole creightoni* Gregg, 1955. Psyche 62: 19-28, pl. 2, figs. a-c, pl. 3, figs. a-c. ♂ ♀ ♂.

*dentata* Mayr.

*Pheidole* (*Pheidole*) *dentata* var. *faisonsica* Forel (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 178).

*Pheidole* (*Pheidole*) *dentata* var. *commutata* Mayr (syn. by Creighton, loc. cit. supra).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 71, pl. 3, figs. 1-14 (larva).

*dentata* var. *commutata* Mayr. Syn. of *dentata* Mayr.

*dentata* var. *faisonsica* Forel. Syn. of *dentata* Mayr.

*dentigula* M. R. Smith. Tenn.

*desertorum* W. M. Wheeler.

*Pheidole* (*Pheidole*) *desertorum* var. *comanche* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 178).

*Pheidole* (*Pheidole*) *desertorum* var. *maricopa* W. M. Wheeler (syn. by Creighton, op. cit., p. 179).

*desertorum* var. *comanche* W. M. Wheeler. Syn. of *desertorum* W. M. Wheeler.

*desertorum* var. *maricopa* W. M. Wheeler. Syn. of *desertorum* W. M. Wheeler.

*floridana lauta* W. M. Wheeler, changed status. Texas to Ala.

*Pheidole* (*Pheidole*) *lauta* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 178).



*gilvescens* W. M. Wheeler, changed status. Ariz., Calif.

*Pheidole (Pheidole) xerophila tucsonica* var. *gilvescens* W. M. Wheeler. Raised to sp. rank (*teste* Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 5-7, 40, fig. 8, c-d. ♂ 2f).

*hayesi* M. R. Smith. Syn. of *bicarinata* Mayr.

*hyatti hyatti* Emery. Colo.

*Pheidole (Pheidole) hyatti* var. *ecitonodora* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 180).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 74 (larva).

*hyatti* var. *ecitonodora* W. M. Wheeler. Syn. of *hyatti hyatti* Emery.

\**kingi* E. André. Syn. of *tepicana* Pergande.

*kingi instabilis* Emery. Syn. of *tepicana* Pergande.

*kingi torpescens* W. M. Wheeler. Syn. of *tepicana* Pergande.

*lamia* W. M. Wheeler. Ga.

*lauta* W. M. Wheeler. A subsp. of *floridana* Emery.

*macclendoni* W. M. Wheeler. Tex. to Ariz.

*megacephala* (Fabricius).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 75 (larva).

*metallescens metallescens* Emery. Fla. to Tex.

*metallescens spendidula* W. M. Wheeler. Delete all records for this subspecies except Tex.

*militicida* W. M. Wheeler. Ariz., N. Mex.

Biology: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 298.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 9-12, fig. 3, a-b. ♀ ♂.

*morrisii morrisii* Forel

*Pheidole (Pheidole) morrisii* Forel. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 183).

*Pheidole (Pheidole) morrisii* var. *vanceae* Forel (syn. by Creighton, 1950, *loc. cit. supra*).

*morrisii impexa* W. M. Wheeler, changed status. Okla., Tex.

*Pheidole (Pheidole) morrisii* var. *impexa* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 184).

*morrisii* var. *impexa* W. M. Wheeler. A subsp. of *morrisii* Forel.

*morrisii* var. *vanceae* Forel. Syn. of *morrisii morrisii* Forel.

\**pilifera anfracta* Cole. Syn. of *senex* Gregg.

*pilifera artemisia* Cole. Ariz.

Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 280. 2f.—Gregg, 1955. Psyche 62: 22-23. ♂ 2f.

*pilifera coloradensis* Emery. Colo. and N. Mex. to the Dakotas.

*Pheidole (Pheidole) pilifera coloradensis* var. *neomexicana* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 187).

Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 279. 2f.—Gregg, 1955. Psyche 62: 22-23. ♂ 2f.

*pilifera coloradensis* var. *neomexicana* W. M. Wheeler. Syn. of *pilifera coloradensis* Emery.



**pilifera pacifica** W. M. Wheeler, changed status. Nev.

*Pheidole (Pheidole) xerophila pacifica* W. M. Wheeler. A subsp. of **pilifera** not of **xerophila** (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 187).

Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 279. ♀.—Gregg, 1955. Psyche 62: 22-23. ♀ 2f.

**pilifera pilifera** (Roger). Fla.

*Pheidole (Pheidole) pilifera* var. **simulans** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 106).

*Pheidole (Pheidole) pilifera septentrionalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: Cole, 1952. Tenn. Acad. Sci. Jour. 27: 280, 2f.—G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 79 (larva).—Gregg, 1955. Psyche 62: 22-23. ♀ 2f.

**pilifera septentrionalis** W. M. Wheeler. Syn. of **pilifera pilifera** (Roger).

**pilifera** var. **simulans** W. M. Wheeler. Syn. of **pilifera pilifera** (Roger).

**pinealis** W. M. Wheeler. Tex.; Mexico.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 12-14. ♀ 2f.

**porcula** W. M. Wheeler, changed status. Tex. to Colo.

*Pheidole (Pheidole) crassicornis porcula* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 187).

**proserpina** W. M. Wheeler. Syn. of **sciophila** W. M. Wheeler.

\***psammophila** Creighton and Gregg. Ariz., Calif., Mexico.

*Pheidole psammophila* Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 15-19, fig. 4, fig. 5, a-b. ♀ 2f.

\***rugifrons** Pergande. Syn. of **tepicana** Pergande.

\***sciara** Cole. (In fallax group). N. Mex. (Lordsburg), Tex.

*Pheidole sciara* Cole, 1955. Tenn. Acad. Sci. Jour. 30: 47-49. ♀ 2f.

**sciophila** W. M. Wheeler. Ariz., Tex.; Mexico.

*Pheidole (Pheidole) proserpina* W. M. Wheeler (syn. by Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 19).

*Pheidole (Pheidole) sciophila* var. **semilaevicephala** M. R. Smith (syn. by Creighton and Gregg, *loc. cit. supra*).

**sciophila** var. **semilaevicephala** M. R. Smith. Syn. of **sciophila** W. M. Wheeler.

\***senex** Gregg. (In subarmata group) Colo., N. Mex., Tex.

*Pheidole senex* Gregg, 1952. Amer. Mus. Novitates 1557: 1-4. ♀ 2f.

\**Pheidole pilifera anfracta* Cole, 1952. Tenn. Acad. Sci. Jour. 27: 278. ♀, 2f. (Syn. by Cole, 1953, *op. cit.* 28: 298).

Taxonomy: Gregg, 1955. Psyche 62: 22-23. ♀ 2f.

\***sitarches littoralis** Cole. (In subarmata group) Fla. (Lido Beach, Sarasota).

*Pheidole sitarches littoralis* Cole, 1952. Ent. Soc. Amer. Ann. 45: 443-444. ♀ 2f.

**sitarches rufescens** W. M. Wheeler. Syn. of **soritis** W. M. Wheeler.

**sitarches rufescens** var. **campestris** W. M. Wheeler. Syn. of **soritis** W. M. Wheeler.

**sitarches sitarches** W. M. Wheeler. Ariz., N. Mex., Utah.

*Pheidole (Pheidole) sitarches* var. **transvarians** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 189). Generic name misspelled *Pheidloe* in orig. cit. in Catalog.

Taxonomy: Cole, 1952. Ent. Soc. Amer. Ann. 45: 444. ♀.

**sitarches** var. **transvarians** W. M. Wheeler. Syn. of **sitarches sitarches** W. M. Wheeler.

**spadonia** W. M. Wheeler. Ariz.; Mexico.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 22-24, fig. 6. ♀.

soritis W. M. Wheeler.

*Pheidole (Pheidole) sitarches rufescens* var. *campestris* W. M. Wheeler (syn. by Cole, 1953. Tenn. Acad. Sci. Jour. 28: 298).

*Pheidole (Pheidole) sitarches rufescens* W. M. Wheeler (syn. under *campestris* by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 189). Generic name misspelled *Pheidloe* in orig. cit. in Catalog.

Taxonomy: Cole, 1952. Ent. Soc. Amer. Ann. 45: 444. ♀.

\**tepicana* Pergande. Ariz., Tex.; Mexico.

\**Pheidole tepicana* Pergande, 1895. Calif. Acad. Sci. Proc. 5: 878. ♀ 2f. (teste Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3:24).

\**Pheidole rugifrons* Pergande 1895. Calif. Acad. Sci. Proc. 5: 880. 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

\**Pheidole carbonaria* Pergande, 1895. Calif. Acad. Sci. Proc. 5: 881. ♀ 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

\**Pheidole kingi* E. André, 1898. Soc. Ent. de France Bul., p. 244. ♀ 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

\**Pheidole townsendi* E. André, 1898. Soc. Ent. de France Bul., p. 246. ♀ 2f. (Syn. by Creighton and Gregg, loc. cit. supra.)

*Pheidole (Pheidole) kingi instabilis* Emery (syn. by Creighton and Gregg, loc. cit. supra).

*Pheidole (Pheidole) kingi torpescens* W. M. Wheeler (syn. by Creighton and Gregg, loc. cit. supra).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Wash. Proc. 55: 74 (larva).

titanis W. M. Wheeler. Ariz., Tex.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 35-37. ♀ 2f.

\**townsendi* E. André. Syn. of *tepicana* Pergande.

vallicola W. M. Wheeler, changed status.

*Pheidole (Pheidole) crassicornis vallicola* W. M. Wheeler. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 191).

vasliti arizonica Santschi, changed status.

*Pheidole (Pheidole) vasiliti subdentata* var. *arizonica* Santschi. A subsp. of *vasliti*, not a var. (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 192).

*vasliti subdentata* var. *arizonica* Santschi. A subsp. of *vasliti* Pergande.

*vinelandica buccalis* W. M. Wheeler. A subsp. of *bicarinata* Mayr.

*vinelandica cerebrosior* W. M. Wheeler. Raised to sp. rank.

*vinelandica laeviuscula* Emery. Syn. of *bicarinata vinelandica* Forel.

*vinelandica longula* Emery. A subsp. of *bicarinata* Mayr.

*vinelandica longula* var. *huachucana* M. R. Smith. Syn. of *bicarinata buccalis* W. M. Wheeler.

*vinelandica vinelandica* Forel. A subsp. of *bicarinata* Mayr.

virago W. M. Wheeler. Tex.

*xerophila pacifica* W. M. Wheeler. A subsp. of *pilifera* (Roger).

*xerophila tucsonica* W. M. Wheeler. Calif., N. Mex., Tex.; Mexico, Lower Calif.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 40-42, fig. 9. 2f ♀.

*xerophila tucsonica* var. *gilvescens* W. M. Wheeler. Raised to sp. rank.

*xerophila xerophila* W. M. Wheeler. N. Mex.

Taxonomy: Creighton and Gregg, 1955. Univ. Colo. Studies, Series in Biol. 3: 40. 2f.

- \**yaqui* Creighton and Gregg. (In subarmata group.) Calif.; Lower Calif.  
*Pheidole yaqui* Creighton and Gregg, 1955. Univ. Colo. Studies, Series  
 in Biol. 3: 43-46, fig. 10. ♂ ♀ 2f.

Unrecognized Forms of Genus *Pheidole* Westwood, p. 806

Delete from Catalog. Tranf. *Atta pennsylvanica* Buckley and *Atta picea*  
 Buckley to p. 833 under Unrecognized Forms of Myrmicinae.

**PHEIDOLE subgenus CERATOPHEIDOLE Pergande, p. 806**

*clydei* Gregg. Ariz., south. Calif., Nevada.

Taxonomy: Gregg, 1953. Amer. Mus. Novitates 1637: 1-7, figs. 1-2. 2f.

\**grundmanni* M. R. Smith. Utah (Ashley Creek near Vernal).

*Pheidole (Ceratopheidole) grundmanni* M. R. Smith, 1953. N. Y. Ent.  
 Soc. Jour. 61: 144-146, fig. 1. ♂.

**Genus CARDIOCONDYLA Emery, p. 807**

Taxonomy: G. C. and J. Wheeler, 1953. Wash. Acad. Sci. Jour. 43:  
 188-189, figs. 1-9 (larvae).

*nuda minutior* Forel, changed status.

*Cardiocondyla nuda* var. *minutior* Forel. Raised to subsp. rank (*teste*  
 Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104:  
 198).

*nuda* var. *minutior* Forel. A subsp. of *nuda* (Mayr).

*wroughtoni bimaculata* W. M. Wheeler, changed status. Ga.

*Cardiocondyla wroughtoni* var. *bimaculata* W. M. Wheeler. Raised to  
 subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar.  
 Zool. Bul. 104: 199).

*wroughtoni* var. *bimaculata* W. M. Wheeler. A subsp. of *wroughtoni* (Forel).

**CREMATOGASTER subgenus ORTHOCREMA Santschi, pp. 807-808**

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42:  
 258-261, fig. 5, 6-8, 9-18 (larvae).

*minutissima missouriensis* Emery.

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42:  
 260-261, fig. 5, 6-8 (larva).

**CREMATOGASTER subgenus CREMATOGASTER Lund, pp. 808-810**

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42:  
 249-250, 252-254, fig. 1, 14-20, fig. 2, 1-8 (larvae).

Omit last sentence in the paragraph under the subgeneric heading on  
 p. 808.

*ashmeadi* Mayr. Southeast. U. S. from Va. to Fla. and west to Tex. Strictly  
 arboreal; nests in twigs and branches.

*Crematogaster (Crematogaster) ashmeadi* var. *matura* W. M. Wheeler  
 (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool.  
 Bul. 104: 206).

*ashmeadi* var. *matura* W. M. Wheeler. Syn. of *ashmeadi* Mayr.

*californica* Emery. Ariz. Nests in the soil in desert or semi-desert habitats.  
 Males are unusually large for this genus.

*cerasi* (Fitch), changed status. Common in south. Canada and Northern  
 States, south to Ga. in the Appalachians, west to Ozarks and  
 Black Hills and south through the eastern Rockies to N. Mex.  
 Nests in logs and stumps or in the ground under objects.

*Crematogaster (Crematogaster) lineolata cerasi* (Fitch). Raised to sp.  
 rank (*teste* W. F. Buren in unpubl. thesis).



- Crematogaster (Crematogaster) kennedyi* W. M. Wheeler (B form ♀ and typical ♂) (syn. by W. F. Buren in unpubl. thesis). Delete—Parasitic in nest of *Crematogaster lineolata* var. near *cerasi* (Fitch).
- Crematogaster (Acrocoelia) lineolata cerasi* var. *punctinodis* J. Enzmann (syn. by W. F. Buren in unpubl. thesis). Transf. from Unrecognized Forms of Subgenus *Crematogaster* Lund, p. 810.
- clara* Mayr, changed status. Common in lower Miss. Valley States, north and east to Ind., N. J., and Fla., and west to Tex. Nests in flat woods, swamps, and marshes, in rotten logs and stumps, hollow trees, branches, cane stems, etc.
- Crematogaster (Crematogaster) laeviuscula* var. *clara* Mayr. Raised to sp. (teste W. F. Buren in unpubl. thesis).
- Oecodoma (Atta) arborea* Buckley, transf. to *laeviuscula* Mayr (teste W. F. Buren in unpublished thesis).
- creightoni* W. M. Wheeler. Syn. of *pilosa* Emery.
- coarctata* Mayr. Nev., ? Oreg. Nests under rocks and boulders.  
Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 207-208.
- coarctata mormonum* Emery. Raised to sp. rank.
- \**dentinodis* Forel. Ariz.; Mexico. Nests under stones in open grasslands and chaparral, or grass and mesquite, or among shrubs in succulent desert.
- Crematogaster opaca* var. *dentinodis* Forel, 1901. Soc. Ent. Belg. Ann. 45: 130. ♀.
- depilis* W. M. Wheeler, changed status. Arboreal; frequently nests in cactus, and also known to nest in mesquite. Occurs in desert or semi-desert regions.
- Crematogaster (Crematogaster) opaca depilis* W. M. Wheeler. Raised to sp. rank (teste W. F. Buren in unpubl. thesis).  
Taxonomy: Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 204. ♀ not ♀).
- kennedyi* W. M. Wheeler. Syn. of *cerasi* (Fitch).
- laeviuscula* Mayr. Common in central Tex. extending north and east into Kans., Mo. and La. south into Mexico. No authentic record east of the Miss. River. Incipient colonies in twigs and oak galls. Larger colonies in hollow trees and logs. Heterogonic growth strongly exhibited by the species.
- Oecodoma (Atta) arborea* Buckley (syn. by W. F. Buren in unpubl. thesis). Transf. from syn. of *laeviuscula* var. *clara* Mayr.  
Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42: 255-256, fig. 1, 5-7 (larva).
- laeviuscula* var. *clara* Mayr. Raised to sp. rank.
- lineolata cerasi* (Fitch). Raised to sp. rank.
- lineolata cerasi* var. *punctinodis* J. Enzmann. Syn. of *cerasi* (Fitch).
- lineolata cerasi* var. *wheldeni* J. Enzmann. Syn. of *lineolata lineolata* (Say).
- \**lineolata emeryana* Creighton. Mts. of Ariz., Colo., N. Mex. and Utah. Nests mostly under stones in grassy places of over 6,000 ft. alt. Apparently sometimes constructs carton nests under stones.
- Crematogaster lineolata lineolata* var. Emery, 1895. Zool. Jahrb. Abt. f. System. 8: 282. ♀ ♀ ♂. (Var. descr. but not named).
- Crematogaster (Acrocoelia) lineolata emeryana* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 213-214. ♀.
- lineolata lineolata* (Say). Common in south. Canada and Northern States, becoming less common southward but probably present in every state east of the Miss. River, extending west to the Rocky Mts. Nests in the ground under objects, or in logs and stumps.



*Crematogaster (Crematogaster) lineolata* var. *lutescens* Emery (syn. by W. F. Buren in unpubl. thesis).

*Crematogaster (Crematogaster) lineolata cerasi* var. *wheldeni* J. Enzmann (syn. by Buren, *loc. cit. supra*). Transf. from Unrecognized Forms of subgenus *Crematogaster*, p. 810.

Taxonomy: G. C. and J. Wheeler, 1952. Wash. Acad. Sci. Jour. 42: 250-252, fig. 1, 1-4 (larva).

*lineolata subopaca* Emery. Syn of *punctulata* Emery.

\**lineolata subpilosa* W. M. Wheeler. *N. nudum* for *pilosa* Emery.

*lineolata* var. *lutescens* Emery. Syn of *lineolata lineolata* (Say).

*mormonum* Emery, changed status. Apparently confined to the Great Basin area; Nev., Utah, Idaho, and probably eastern Ore. Lives in large colonies under rocks in semi-desert.

*Crematogaster (Crematogaster) coarctata mormonum* Emery. Raised to sp. rank (*teste* W. F. Buren in unpubl. thesis).

\**opaca* Mayr. Ariz. and Mexico. Only one authentic Ariz. record. (Tumacacori Mts. under stone among oaks, 3,900 ft.).

*Crematogaster opaca* Mayr, 1870. Zool.—Bot. Gesell. Wien, Verh. 20: 989. ♂.

*opaca depilis* W. M. Wheeler. Raised to sp. rank.

*opaca punctulata* Emery. Raised to sp. rank.

*opaca* var. *texana* Santschi. Syn. of *punctulata* Emery.

*pilosa* Emery. Coastal plains of Atlantic States from N. J. probably to Ga. Nests in the ground or under logs in humid situations near marshes or bogs. Delete—Host of the parasitic ant, *C. creightoni* Whlr.

\* ? *Crematogaster lineolata subpilosa* W. M. Wheeler, 1913. Psyche 20: 115. *N. nudum*. (*teste* W. F. Buren in unpubl. thesis).

*Crematogaster (Crematogaster) creightoni* W. M. Wheeler (B-form ♀ and typical ♂), (syn. by W. F. Buren in unpubl. thesis). Delete—Parasitic in nest of *Crematogaster pilosa* Emery.

*punctulata* Emery, changed status. Great Plains of east. Colo. and Kans., south into Ariz., N. Mex., Tex. and Mexico, and east through southern States to Va. and Fla. The species exhibits some clinal tendencies in this large range but subspeciation is not clearly marked. Nests in the ground or occasionally under logs and stumps. More xerophilous than *cerasi* (Fitch) or *lineolata lineolata* (Say).

*Crematogaster (Crematogaster) opaca punctulata* Emery. Raised to sp. rank (*teste* W. F. Buren, in unpubl. thesis).

*Crematogaster (Crematogaster) lineolata subopaca* Emery (syn. by W. F. Buren, *loc. cit. supra*).

*Crematogaster (Acrocoelia) opaca* var. *texana* Santschi (syn. by Buren, *loc. cit. supra*). Transf. from Unrecognized Forms of Subgenus *Crematogaster*, p. 810.

*vermiculata* Emery. Known from only one or a few records each in Calif., La., Ark., Miss., Fla., Ga., S. C. Strictly arboreal; found almost exclusively in cypress swamps, although not necessarily in cypress trees.

#### Unrecognized Forms of Subgenus *Crematogaster* Lund, p. 810

Delete this heading from Catalog. Transf. *Crematogaster (Acrocoelia) lineolata cerasi* var. *punctinodis* J. Enzmann to *cerasi* (Fitch), p. 808.

Transf. *Myrmica novaeboracensis* Buckley and *Crematogaster (Acrocoelia) sanguinea coachellai* J. Enzmann to Unrecognized Forms of Myrmicinae, p. 833.

Transf. *Crematogaster (Acrocoelia) opaca* var. *texana* Santschi to *punctulata* Emery, p. 810, of which it is a synonym.

Transf. *Crematogaster (Acrocoelia) lineolata cerasi* var. *wheldeni* J. Enzmann to *lineolata lineolata* (Say), p. 809.

**MONOMORIUM subgenus MONOMORIUM Mayr, pp. 810-811**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 121-122, pl. 1, figs. 8-15 (larvae).

**floricola (Jerdon).**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 121 (larva).

**minimum emersoni** Gregg. Syn. of **minimum minimum** (Buckley).

**minimum ergatogyna** W. M. Wheeler. Syn. of **minimum minimum** (Buckley)

**minimum minimum** (Buckley).

**Monomorium (Monomorium) minimum ergatogyna** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 219).

**Monomorium (Monomorium) minimum emersoni** Gregg (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 122 (larva).

**peninsulatum** Gregg. A subsp. of **viridum** W. L. Brown. Gulf Coast States.

**pharaonis (Linnaeus).**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 121, pl. 1, figs. 8-15 (larva).

Biology: Peacock and Baxter, 1949. Ent. Monthly Mag. 85: 256.—Peacock, 1950. *Op. cit.* 86: 129.—Peacock and Baxter, 1950. *Op. cit.* 86: 171-178.—Peacock, 1950. *Op. cit.* 86: 294.—Peacock, 1951. *Op. cit.* 87: 185-191.—Sudd, 1953. Advancement of Sci. (Brit.) 10: 17.—Peacock, Smith, Hall, and Baxter, 1954. Ent. Monthly Mag. 90: 154.—Peacock, Sudd and Baxter, 1955. *Op. cit.* 91: 125, 130.

Morphology: Hall and Smith, 1951. Ent. Monthly Mag. 87: 217, figs. 1-9.—Hall and Smith, 1952. *Op. cit.* 88: 97, figs. 1-7.—Hall and Smith, 1953. Evolution 7: 127, figs. 1-18.—Hall and Smith, 1954. Ent. Monthly Mag. 90: 176, figs. 1-3, 4-11, 12-15.

**viridum peninsulatum** Gregg, changed status.

**Monomorium (Monomorium) peninsulatum** Gregg. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 223).

**MONOMORIUM subgenus PARHOLCOMYRMEX Emery, p. 811**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 123 (larvae).

**Genus XENOMYRMEX Forel, p. 811**

\***stolli cubanus** W. M. Wheeler. Syn. of **stollii floridanus** Emery.

**stollii floridanus** Emery.

**Xenomyrmex stollii rufescens** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 226).

\***Xenomyrmex stolli cubanus** W. M. Wheeler, 1931. Rev. de Ent. 1: 134-135, fig. 2. ♀. (Syn. by Creighton, 1953. Amer. Mus. Novitates 1634: 2).

**Xenomyrmex stollii floridanus** var. **lucayanus** W. M. Wheeler, 1905. Amer. Mus. Nat. Hist. Bul. 21: 87. ♀. (Syn. by Creighton, 1953, *loc. cit. supra*).

\***stollii floridanus** var. **lucayanus** W. M. Wheeler. Syn. of **stollii floridanus** Emery.

**stollii rufescens** W. M. Wheeler. Syn. of **stollii floridanus** Emery.

**SOLENOPSIS subgenus SOLENOPSIS Westwood, pp. 812-813**

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 131-132 (larvae).

**aurea amblychila** W. M. Wheeler, changed status

*Solenopsis (Solenopsis) xyloni amblychila* W. M. Wheeler. A subsp. of *aurea*, not of *xyloni* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 230).

**aurea aurea** W. M. Wheeler, changed status.

*Solenopsis (Solenopsis) xyloni aurea* W. M. Wheeler. A subsp. of *aurea*, not of *xyloni* McCook (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 230).

**geminata geminata** (Fabricius)

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 132-133, pl. 3, figs. 14-24 (larva).

**\*pylades var. quinquecuspis** Forel. Syn. of *saevissima richteri* Forel.

**saevissima richteri** Forel, changed status. Introduced. All States with infestations from N. C. to Ark. and Tex. and south. Largest areas in Ala., Miss., La.

*Solenopsis (Solenopsis) saevissima* var. *richteri* Forel. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 232).

**\*Solenopsis pylades var. quinquecuspis** Forel, 1913. Soc. Vaud des Sci. Nat. Bul. 49: 224. ♀. (Syn. by Wilson, 1952. Mem. do Inst. Oswaldo Cruz (Rio de Janeiro) 50: 66.)

Biology: Green, 1952. Jour. Econ. Ent. 45: 593.—Culpepper, 1953. U. S. Dept. Agr., Bur. Ent. and Pl. Quar., E-867.

Economics: Anonymous, 1954. U. S. D. A. Leaflet 350 (illus.).

Taxonomy: Wilson, 1951. Evolution 5: 68-79, 5 figs.

**saevissima var. richteri** Forel. A subsp. of *saevissima* (F. Smith).

**xyloni** McCook, changed status. Calif.

*Solenopsis (Solenopsis) xyloni xyloni* McCook. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 232).

*Solenopsis (Solenopsis) xyloni* var. *maniosa* W. M. Wheeler (syn. by Creighton, *loc. cit. supra.*)

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 133 (larva).

**xyloni amblychila** W. M. Wheeler. A subsp. of *aurea* W. M. Wheeler.

**xyloni aurea** W. M. Wheeler. A subsp. of *aurea*, not of *xyloni* McCook.

**xyloni xyloni** McCook. Raised to sp. rank.

**xyloni var. maniosa** W. M. Wheeler. Syn. of *xyloni* McCook.

#### SOLENOPSIS subgenus EUOPHTHALMA Creighton, p. 813

**huachucana** W. M. Wheeler.

Taxonomy: Creighton, 1930. Amer. Acad. Arts and Sci. Proc. 66: 118-120. ♀ ♀.

#### SOLENOPSIS subgenus DIPLORHOPTRUM Mayr, pp. 813-814

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 133-136, pl. 3, figs. 25-31.

**carolinensis** Forel, changed status. Tenn. to south. New England.

*Solenopsis (Diplorhoptrum) texana carolinensis* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 236).

**krockowi** W. M. Wheeler. Mexico.

**molesta molesta** (Say). Canada, eastern and central U. S.

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 134-135, pl. 3, figs. 25-27 (larva).

**molesta validiuscula** Emery.

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 135 (larva).



*molesta* var. *castanea* W. M. Wheeler. Syn. of *texana truncorum* Forel.

*picta* Emery. Fla. to Tex.

*Solenopsis (Diplorhoptrum) picta* var. *moerens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 237).

*picta* var. *moerens* W. M. Wheeler. Syn. of *picta* Emery.

*rosella* Kennedy. Syn. of *texana texana* Emery.

*salina* W. M. Wheeler. Tex. to Calif. and Mexico.

*texana carolinensis* Forel. Raised to sp. rank.

*texana texana* Emery. Ont. to Tex. and southeast. U. S.

*Solenopsis (Diplorhoptrum) rosella* Kennedy (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 238).

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 136 (larva).

*texana truncorum* Forel. Southeast. U. S., west to Rocky Mts.

*Solenopsis (Diplorhoptrum) molesta* var. *castanea* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 239).

#### Unrecognized Form of Subgenus *Diplorhoptrum* Mayr, p. 814

Delete from Catalog. Transf. *Solenopsis madara* Roger to p. 833 under Unrecognized Forms of Myrmicinae.

#### Genus *ANERGATES* Forel, p. 815

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 128 (larvae).

*atratus* (Schenck)

*Anergates friedlandi* Creighton (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 243).

Taxonomy: G. C. and J. Wheeler, 1955. Amer. Midland Nat. 54: 128-130, pl. 2, figs. 22-30 (larva).

*friedlandi* Creighton. Syn. of *atratus* (Schenck).

#### Genus *EREBOMYRMA* W. M. Wheeler, p. 815

Taxonomy: G. C. and J. Wheeler, 1953. Psyche 60: 141, fig. 1, G-I (larvae).

#### Genus *MYRMECINA* Curtis, pp. 815-816

Taxonomy. W. L. Brown, 1951. Brooklyn Ent. Soc. Bul. 46: 103-106.—  
G. C. and J. Wheeler, 1954. Ent. Soc. Wash. Proc. 56: 129-131, pl. 2, figs. 17-21 (larvae).

*americana* Emery, changed status.

*Myrmecina americana americana* Emery. Raised to sp. rank (*teste* W. L. Brown, 1949. Psyche 56: 44).

*Myrmecina americana texana* W. M. Wheeler (syn. by W. L. Brown, 1951. Brooklyn Ent. Soc. Bul. 46: 103).

Taxonomy: G. C. and J. Wheeler, 1954. Ent. Soc. Wash. Proc. 56: 130, pl. 2, figs. 17-21 (larva).

*americana texana* W. M. Wheeler. Syn. of *americana* Emery.

#### Genus *MACROMISCHA* Roger, p. 816

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 17-18, pl. 1, figs. 1-7 (larvae).

#### **LEPTOTHORAX** subgenus **NESOMYRMEX** W. M. Wheeler, pp. 816-817

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 25 (larvae).



**LEPTOTHORAX subgenus MYRAFANT M. R. Smith, pp. 817-819**

Taxonomy: M. R. Smith, 1952. N. Y. Ent. Soc. Jour. 60: 96-106 (tricarinatus—texanus complex).—W. L. Brown, 1955. Ent. News 66: 43.—G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 22-25, fig. 1, H-N (larvae).—Cole, 1956. Tenn. Acad. Sci. Jour. 31: 30-31 (tricarinatus—texanus complex).

**ambiguus ambiguus** Emery, changed status. N. Dak.

*Leptothorax (Myrafant) curvispinosus ambiguus* Emery. A subsp. of **ambiguus** not of **curvispinosus** (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 261-263).

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 22-23, fig. 1, H-N (larva).

**ambiguus foveatus** M. R. Smith, changed status.

*Leptothorax (Myrafant) foveata* M. R. Smith. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 263).

**ambiguus pinetorum** L. G. and R. G. Wesson, changed status.

*Leptothorax (Myrafant) curvispinosus ambiguus* var. *pinetorum* L. G. and R. G. Wesson. A subsp. of **ambiguus** not a var. (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 263).

**\*angustinodus** Cole. Preocc. New name, *stenotyle* Cole.

**bradleyi** W. M. Wheeler. Ala.

Taxonomy: Wilson, 1952. Ent. News 63: 68-71. ♀ ♀ ♂.

**curvispinosus** Mayr, changed status.

*Leptothorax (Myrafant) curvispinosus curvispinosus* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 263-264).

**curvispinosus ambiguus** Emery. A subsp. of **ambiguus** Emery.

**curvispinosus ambiguus** var. *pinetorum* L. G. and R. G. Wesson. A subsp. of **ambiguus** Emery.

**eldoradensis** W. M. Wheeler. A subsp. of **nevadensis** W. M. Wheeler.

**fortinodis** Mayr. Syn. of **schaumi** Roger.

**fortinodis** var. *gilvus* W. M. Wheeler. Syn. of **schaumi** Roger.

**fortinodis** var. *melanoticus* W. M. Wheeler. Syn. of **schaumi** Roger.

**foveata** M. R. Smith. A subsp. of **ambiguus** Emery. ? Iowa.

**longispinosus** Roger, changed status.

*Leptothorax (Myrafant) longispinosus longispinosus* Roger. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 264).

*Leptothorax (Myrafant) longispinosus iowensis* Buren (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 24 (larva).

**longispinosus iowensis** Buren. Syn. of **longispinosus** Roger.

**melanderi** W. M. Wheeler. A subsp. of **nevadensis** W. M. Wheeler.

**neomexicanus** W. M. Wheeler. A subsp. of **tricarinatus** Emery.

**nevadensis eldoradensis** W. M. Wheeler, changed status.

*Leptothorax (Myrafant) eldoradensis* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 266).

**nevadensis melanderi** W. M. Wheeler, changed status.

*Leptothorax (Myrafant) melanderi* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ. Mus. Compar. Zool. Bul. 104: 266).

*nevadensis nevadensis* W. M. Wheeler. Calif., Oreg., Wash.

*nitens heathii* W. M. Wheeler, changed status.

*Leptothorax (Myrafant) nitens* var. *heathii* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 265).

*nitens nitens* Emery. Tex.

*Leptothorax (Myrafant) nitens* var. *mariposa* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 265).

*Leptothorax (Myrafant) nitens occidentalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*nitens occidentalis* W. M. Wheeler. Syn. of *nitens nitens* Emery.

*nitens* var. *heathii* W. M. Wheeler. Raised to subsp. rank.

*nitens* var. *mariposa* W. M. Wheeler. Syn. of *nitens nitens* Emery.

\**obliquicanthus* Cole. Colo., N. Mex. (In *tricarinatus*—*texanus* complex.).

*Leptothorax (Myrafant) obliquicanthus* Cole, 1953. Ent. Soc. Wash. Proc. 55: 28-30, figs. 1, 2. ♀.

Taxonomy: Gregg, 1953. *Breviora* 22: 1-3, fig. 1. ♀.

*obturator* W. M. Wheeler.

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 24 (larva).

*rugatulus annectens* W. M. Wheeler. Syn. of *rugatulus rugatulus* Emery.

*rugatulus brunnescens* W. M. Wheeler.

*Leptothorax (Myrafant) rugatulus dakotensis* G. C. and E. W. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 269).

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 25 (larva).

*rugatulus dakotensis* G. C. and E. W. Wheeler. Syn. of *rugatulus brunnescens* Wheeler.

*rugatulus rugatulus* Emery.

*Leptothorax (Myrafant) rugatulus annectens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ. Mus., Compar. Zool. Bul. 104: 269).

*Leptothorax (Myrafant) rugatulus* var. *cockerelli* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Leptothorax (Myrafant) rugatulus* var. *mediorufus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 240.

*rugatulus* var. *cockerelli* W. M. Wheeler. Syn. of *rugatulus rugatulus* Emery.

*rugatulus* var. *mediorufus* W. M. Wheeler. Syn. of *rugatulus rugatulus* Emery.

*schaumi* Roger. Maine, Tenn.

*Leptothorax (Myrafant) fortinodis* Mayr (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 271).

*Leptothorax (Myrafant) fortinodis* var. *gilvus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Leptothorax (Myrafant) fortinodis* var. *melanoticus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*silvestrii* (Santschi). Ariz. Nests in evergreen oaks at altitudes of 3,500 ft. or more. Transf. from Unrecognized Forms of Myrmicinae, p. 833 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 271).

Taxonomy: Creighton, 1953. Amer. Mus. Novitates 1635: 1-7, figs. 1-6. ♀ ♀ ♂.

\**stenotyle* Cole. Ariz. (near Rustler's Park, Chiricahua Mts.). (In *tricarinatus* - *texanus* complex.).

*Leptothorax (Leptothorax) angustinodus* Cole, 1956. Tenn. Acad. Sci. Jour. 31: 28-30. ♂ ♀. Preocc.

*Leptothorax (Leptothorax) stenotyle* Cole, 1956. Tenn. Acad. Sci. Jour. 31: 214. N. name.

*texanus davisii* W. M. Wheeler. Fla.

Taxonomy: M. R. Smith, 1951. N. Y. Ent. Soc. Jour. 60: 104-106. ♂.

*texanus texanus* W. M. Wheeler. Ala., Ind., Ga.

Taxonomy: M. R. Smith, 1952. N. Y. Ent. Soc. Jour. 60: 102-104. ♂.

*tricarinatus neomexicanus* W. M. Wheeler, changed status. Utah.

*Leptothorax (Myrafant) neomexicanus* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 273).

Biology: Cole, 1953. Ent. Soc. Wash. Proc. 55: 28.

Taxonomy: M. R. Smith, 1952. N. Y. Ent. Soc. Jour. 60: 100-102. ♂.

*tricarinatus tricarinatus* Emery, changed status. Colo., Utah, Wyo.

*Leptothorax (Myrafant) tricarinatus* Emery. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 273).

Taxonomy: M. R. Smith, 1952. N. Y. Ent. Soc. Jour. 60: 98-100. ♂ ♂.

\**tuscaloosae* Wilson. Ala. (Tuscaloosa).

*Leptothorax (Myrafant) tuscaloosae* Wilson, 1950. Psyche 57: 128-130. ♂ ♀.

*wheeleri* M. R. Smith.

Taxonomy: Wilson, 1952. Ent. News 60: 67-68, 70. ♂ ♂.

#### LEPTOTHORAX subgenus DICHOTHORAX Emery, p. 820

*pergandei flavus* M. R. Smith. Syn. of *pergandei floridanus* Emery.

*pergandei floridanus* Emery. N. J.

*Leptothorax (Dichothorax) pergandei floridanus* var. *spinosus* M. R. Smith (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 260).

*Leptothorax (Dichothorax) pergandei flavus* M. R. Smith (syn. by Creighton, *loc. cit. supra*).

*pergandei floridanus* var. *spinosus* M. R. Smith. Syn. of *pergandei floridanus* Emery.

#### LEPTOTHORAX subgenus LEPTOTHORAX Mayr, pp. 820-822

Taxonomy: W. L. Brown, 1955. Ent. News 66: 43-50.—G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 21-22 (larvae).

*acervorum canadensis* Provancher. Syn. of *muscorum* (Nylander).

*acervorum canadensis* var. *calderoni* Forel. Syn. of *muscorum* (Nylander).

*acervorum canadensis* var. *convivialis* W. M. Wheeler. Syn. of *muscorum* (Nylander).

*acervorum canadensis* var. *kincaidi* Pergande. Syn. of *muscorum* (Nylander).

*acervorum canadensis* var. *yankee* Emery. Syn. of *muscorum* (Nylander).

*acervorum crassipilis* W. M. Wheeler. Raised to sp. rank.

*crassipilis* W. M. Wheeler, changed status. Ariz., Nev., N. Mex., Utah, Wyo.

*Leptothorax (Leptothorax) acervorum crassipilis* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 278).

Biology: Cole, 1953. Ent. Soc. Wash. Proc. 55: 27.

Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 240-241.

*diversipilosus* M. R. Smith.

Taxonomy: M. R. Smith, 1956. Ent. Soc. Wash. Proc. 58: 271-275, fig. 1, ♀ ergatoid ♂.



*duloticus* L. G. Wesson. Mich., ? Ill.

*emersoni emersoni* W. M. Wheeler. Syn. of *provancheri* Emery.

*emersoni glacialis* W. M. Wheeler. Syn. of *provancheri* Emery.

*emersoni hirtipilis* W. M. Wheeler. Syn. of *provancheri* Emery.

*hirticornis* Emery.

\**Leptothorax (Mychothorax) hirticornis formidosus* W. M. Wheeler, 1915. Amer. Mus. Nat. Hist. Bul. 34: 415. ♀ ♀. (Syn. by M. R. Smith, 1939. Ent. Soc. Wash. Proc. 41: 177.)

\**hirticornis formidosus* W. M. Wheeler. Syn. of *hirticornis* Emery.

\**muscorum* (Nylander). Eurasia, and America north of Mexico.

*Myrmica muscorum* Nylander, 1846. Acta Soc. Sci. Fenn. 2: 1054.

♀ ♀ ♂.

*Leptothorax (Leptothorax) acervorum canadensis* Provancher (syn. by W. L. Brown, 1955. Ent. News 66: 47.

*Leptothorax (Leptothorax) acervorum canadensis* var. *convivialis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 276).

*Leptothorax (Leptothorax) acervorum canadensis* var. *calderoni* Forel (syn. by W. L. Brown, loc. cit. supra).

*Leptothorax (Leptothorax) muscorum* var. *septentrionalis* W. M. Wheeler (syn. by Creighton, loc. cit. supra).

*Leptothorax (Leptothorax) acervorum canadensis* var. *yankee* Emery (syn. by W. L. Brown, loc. cit. supra).

*Leptothorax (Leptothorax) muscorum* var. *sordidus* W. M. Wheeler (syn. by Creighton, loc. cit., supra, p. 277).

*Leptothorax (Leptothorax) acervorum canadensis* var. *kincaidi* Pergande (syn. by W. L. Brown, loc. cit. supra).

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 21 (larva).

Ecology: W. L. Brown, 1955. Ent. News 66: 47-50.

*muscorum* var. *septentrionalis* W. M. Wheeler. Syn. of *muscorum* (Nylander).

*muscorum* var. *sordidus* W. M. Wheeler. Syn. of *muscorum* (Nylander).

*provancheri* Emery. Mich., N. Dak., N. Mex.

*Leptothorax (Leptothorax) emersoni emersoni* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 279).

*Leptothorax (Leptothorax) emersoni hirtipilis* W. M. Wheeler (syn. by Creighton, loc. cit. supra).

*Leptothorax (Leptothorax) emersoni glacialis* W. M. Wheeler (syn. by Cole, 1954. Tenn. Acad. Sci. Jour. 29: 241).

#### Genus HARPAGOXENUS Forel, p. 822

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 26-28, figs. 24-29 (larvae).

*americanus* (Emery). Mo.

Taxonomy: G. C. and J. Wheeler, 1955. Ent. Soc. Amer. Ann. 48: 26-27, pl. 1, figs. 24-29 (larva).

#### Genus TRIGLYPHOTHRIX Forel, p. 823

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 451 (larva of *areolatus* Stitz).

#### Genus TETRAMORIUM Mayr, pp. 823-824

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 445 (larvae).

*caespitum* (Linnaeus). Ont.

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 445-447, pl. 1, figs. 1-11 (larva).



**guineense** (Fabricius).

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 449-450 (larvae).

**Genus XIPHOMYRMEX Forel, p. 824**

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 450 (larvae).

**Genus WASMANNIA Forel, pp. 824-825**

Taxonomy: G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 444 (larvae).

**auropunctata** (Roger)

Taxonomy: M. R. Smith, 1954. Amer. Mus. Novitates 1671: 7-8.—G. C. and J. Wheeler, 1954. Amer. Midland Nat. 52: 444 (larva).

**PARACRYPTOCERUS subgenus HARNEDIA M. R. Smith, p. 825**

Taxonomy: Kempf, 1951. Rev. de Ent. (Rio de Janeiro) 22: 156, 157, 233.—G. C. and J. Wheeler, 1954. Wash. Acad. Sci. Jour. 44: 156-157, figs. 39-40, 42-44 (larvae).

**texanus** Santschi.

Biology: Creighton, 1954. Psyche 61: 41-57, 2 pls., 3 text figs.

**PARACRYPTOCERUS subgenus CYATHOMYRMEX Creighton, p. 825**

Taxonomy: Kempf, 1951. Rev. de Ent. (Rio de Janeiro) 22: 156-157.

**varians** (F. Smith).

Taxonomy: G. C. and J. Wheeler, 1954. Wash. Acad. Sci. Jour. 44: 156 (larva).

**STRUMIGENYS subgenus STRUMIGENYS F. Smith, pp. 825-826**

\**Proscopomyrmex* Patrizi, 1946. Bol. Inst. Ent. R. Univ. Bologna 15: 294.

Type: *Proscopomyrmex londianensis* Patrizi. By monotypy.

\**Eneria* Donisthorpe, 1947. Ann. Mag. Nat. Hist. 14: 598.

Type: (*Eneria excisa* Donisthorpe) = *Strumigenys Loriae* Emery. By monotypy.

Biology: W. L. Brown, 1950. Brooklyn Ent. Soc. Bul. 45: 87-89.

Taxonomy: W. L. Brown, 1948. Amer. Ent. Soc. Trans. 74: 108.—G. C. and J. Wheeler, 1954. Psyche 61: 135 (larvae).

The extralimital genera listed above have been synonymized by W. L. Brown, 1949. Mushi 20: 14.

**louisianae** Roger. Mexico, South America.

Biology: Wilson, 1950. Brooklyn Ent. Soc. Bul. 45: 85-86.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 28-31, fig. 1. ♀.

**SMITHISTRUMA subgenus WESSONISTRUMA W. L. Brown, p. 826**

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 50-55, text fig. 1, pl. 3, fig. 28.—G. C. and J. Wheeler, 1954. Psyche 61: 144-145 (larvae).

**angulata** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 54-55. ♂ ♀.

**pergandei** (Emery).

Biology: W. L. Brown, 1952. Psyche 59: 12.—Wilson, 1953. Ent. Soc. Amer. Ann. 46: 487-488.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 51-54, text fig. 5, pl. 3, fig. 29. ♂ ♀ ♂.

**SMITHISTRUMA subgenus SMITHISTRUMA W. L. Brown, pp. 826-828**

Biology: W. L. Brown, 1950. Brooklyn Ent. Soc. Bul. 45: 87-89.—Wilson, 1953. Ent. Soc. Amer. Ann. 46: 485-487.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 55-92, 4 text figs, 3 pls.—G. C. and J. Wheeler, 1954. Psyche 61: 141-144, pl. 9, figs. 11-18 (larvae).

**abdit** (L. G. and R. G. Wesson).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 89-90, pl. 1, fig. 3. ♀ ♀.

**bimarginata** (L. G. and R. G. Wesson).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 62-63. ♀ ♀.

**brevisetosa** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 59-60. ♀ ♀.

**bunki** W. L. Brown.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 82-84, pl. 1, figs. 6-10. ♀ ♀.

**californica** W. L. Brown.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 85-86. ♀.

**\*cloydi** Pfitzer. Tenn. (Knoxville).

*Smithistruma cloydi* Pfitzer, 1951. Tenn. Acad. Sci. Jour. 26: 198-200, pl. 1, figs. 1-3. ♀.

**clypeata** (Roger). Va. (in cave, Luray Caverns).

Biology: M. R. Smith, 1955. Brooklyn Ent. Soc. Bul. 50: 28.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 58-59, pl. 2, fig. 16. ♀ ♀ ♂.

**creightoni** (M. R. Smith). Fla., Ga., Tenn.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 80-81, pl. 1, fig. 1. ♀ ♀.

**dietrichi** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 67-68, fig. 8. ♀ ♀.

**filirrhina** W. L. Brown

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 63-64. ♀.

**filitalpa** W. L. Brown.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 79-80, pl. 1, fig. 8. ♀.

**laevinasis** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 61-62, fig. 6. ♀ ♀.

**margaritae** (Forel). Ga.; Mexico, Colombia.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 108-110, pl. 2, fig. 20. ♀ ♀ ♂.

**missouriensis** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 72-73, text fig. 9, pl. 1, fig. 7. ♀ ♀.

**ohioensis** (Kennedy and Schramm). Ala., Del., Md.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 87-89, pl. 1, fig. 4; pl. 2, fig. 19; pl. 3, fig. 30. ♀ ♀ ♂.

**ornata** (Mayr).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 65-67, text fig. 7, pl. 1, fig. 2. ♀ ♀.

**pilinas** (Forel).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 60-61. ♀ ♀.

**pulchella** (Emery).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 70-72. ♀ ♀ ♂.

**reflexa** (L. G. and R. G. Wesson).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 73-75. ♀ ♀ ♂.

**rohweri** (M. R. Smith).

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 57-58. ♀.

**rostrata** (Emery). N. J. to Ill. south to Gulf of Mex., also La., Mo.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 84-85, text. figs. 2, 4, pl. 2, fig. 26, pl. 3, figs. 28, 32. ♀ ♀ ♂.—G. C. and J. Wheeler, 1954. Psyche 61: 144 (larva).

**talpa** (Weber). La.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 76-78, pl. 1, fig. 5; pl. 3, fig. 31. ♂ ♀ ♂.—G. C. and J. Wheeler, 1954. Psyche 61: 141, pl. 9, figs. 11-18 (larva).

**wrayi** W. L. Brown.

Taxonomy: W. L. Brown, 1953. Amer. Midland Nat. 50: 78-79, pl. 1, fig. 9. ♀.

**Genus TRICHOSCAPA Emery, p. 829**

Biology: Wilson, 1953. Ent. Soc. Amer. Ann. 46: 483-485.—G. C. and J. Wheeler, 1954. Psyche 61: 145 (larvae).

**membranifera** (Emery).

Biology: Weber, 1952. Amer. Mus. Novitates 1554: 7.

Taxonomy: W. L. Brown, 1949. Mushi 20: 7, 22.

**Genus QUADRISTRUMA W. L. Brown, p. 829****emmae** (Emery).

\**Epitritus wheeleri* Donisthorpe, 1916. Ent. Rec. 28: 121. ♀ (syn. by W. L. Brown, 1949. Amer. Ent. Soc. Trans. 75: 48).

Biology: W. L. Brown, 1949. Mushi 20: 21.

*wheeleri* (Donisthorpe). Syn. of *emmae* (Emery).

**CYPHOMYRMEX subgenus CYPHOMYRMEX Mayr, pp. 829-830**

Biology: Weber, 1955. Sci. 121: 109.

Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 668-670, pl. 2, figs. 1-8 (larvae).

**rimosus** (Spinola).

*Cyphomyrmex (Cyphomyrmex) rimosus* var. *comalensis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 316) under *minutus* Mayr, which is a syn. of *rimosus*.

Biology: Weber, 1947. Bol. de Ent. Venezolana 6: 144.—Weber, 1955. Wash. Acad. Sci. Jour. 45: 275-281, 2 figs.

Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 668, pl. 2, figs. 1-6 (larva).

*rimosus* var. *comalensis* W. M. Wheeler. Syn. of *rimosus* (Spinola).

**Genus TRACHYMYRMEX Forel, pp. 830-831**

Biology: Weber, 1955. Sci. 121: 109.

Taxonomy: Weber, 1945. Rev. de Ent. (Rio de Janeiro) 16: 44, figs. 1, 2.—G. C. Wheeler, 1948. Amer. Midland Nat. 40: 673-674, pl. 2, figs. 14-19 (larvae).

**jamaicensis** (André).

Biology: M. R. Smith, 1936. Puerto Rico Univ. Jour. Agr. 20: 860.

\**nogalensis* Byars. Ariz. (Nogales). (In *arizonensis-saussurei* complex).

*Trachymyrmex nogalensis* Byars, 1951. Ent. Soc. Wash. Proc. 53: 109-111, figs. 1, 2. ♂ ♀.

**septentrionalis obscurior** (W. M. Wheeler).

*Trachymyrmex septentrionalis obscurior* var. *crystallina* (W. M. Wheeler) (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 324).

*Trachymyrmex septentrionalis obscurior* var. *irrorata* (W. M. Wheeler) (syn. by Creighton, loc. cit. supra).



Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 673, pl. 2, figs. 14-19 (larva).

*septentrionalis obscurior* var. *crystallina* (W. M. Wheeler). A syn. of *septentrionalis obscurior* (W. M. Wheeler).

*septentrionalis obscurior* var. *irrorata* (W. M. Wheeler). A syn. of *septentrionalis obscurior* (W. M. Wheeler).

*septentrionalis obscurior* var. *seminole* (W. M. Wheeler). A subsp. of *septentrionalis* (McCook).

*septentrionalis seminole* (W. M. Wheeler), changed status.

*Trachymyrmex septentrionalis obscurior* var. *seminole* (W. M. Wheeler). raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 324).

Biology: Cole, (1950) 1951. Ent. Soc. Amer. Ann. 43: 499-500.—Weber, 1956. Ecology 37: 197-199.

*septentrionalis septentrionalis* (McCook).

*Trachymyrmex septentrionalis* var. *vertebrata* (W. M. Wheeler) (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 323).

Biology: Weber, 1956. Ecology 37: 150-161, figs. 1-4.

*septentrionalis* var. *vertebrata* (W. M. Wheeler). Syn. of *septentrionalis septentrionalis* (McCook).

\**smithi neomexicanus* Cole. N. Mex. (5 miles north of Las Cruces).

*Trachymyrmex smithi neomexicanus* Cole, 1952. Tenn. Acad. Sci. Jour. 27: 159-162, fig. 1, a-c. ♂.

Taxonomy: Cole, 1953. Tenn. Acad. Sci. Jour. 28: 300-301. ♀ ♂.

#### Unrecognized Forms of Genus *Trachymyrmex* Forel, p. 831

Delete from Catalog. Transf. *Oecodoma tardigrada* Buckley to Unrecognized Forms of Myrmicinae, p. 833.

#### ACROMYRMEX subgenus MOELLERIUS Forel, p. 832

Taxonomy: Weber, 1945. Rev. de Ent. (Rio de Janeiro) 16: 61-62, figs. 1, 2.—G. C. Wheeler, 1948. Amer. Midland Nat. 40: 674-676, pl. 3, figs. 1-9 (larvae of *Acromyrmex*).

#### Genus ATTA Fabricius, pp. 832-833

Taxonomy: G. C. Wheeler, 1948. Amer. Midland Nat. 40: 676-683, pl. 3, figs. 10-16 (larvae).—Borgmeier, 1950. Inst. Oswaldo Cruz, Mem. 48: 239-263, 64 illustrations.

*mexicana* (F. Smith). Central America.

Taxonomy: Borgmeier, 1950. Inst. Oswaldo Cruz, Mem. 48: 260-261, figs. 53, 55, 59, 62 (male).

*texana* (Buckley).

Taxonomy: Borgmeier, 1950. Inst. Oswaldo Cruz, Mem. 48: 260-261, figs. 54, 57, 60, 61 (male).

#### Unrecognized Forms of Myrmicinae, p. 833

*Myrmica* (*Monomarium* (!)) *aquia* Buckley. Transf. from *Aphaenogaster* (*Attomyrma*), p. 796.

*Tetramorium* (*Cephalomorium*) *bahai* Forel. Transf. to *Pheidole* (*Pheidole*), p. 800.

*Crematogaster* (*Acrocoelia*) *sanguinea coachellai* J. Enzmann. Transf. from Unrecognized Forms of Subgenus *Crematogaster*, p. 810.

*Myrmica dimidiata* Say. Transf. from Unrecognized Forms of *Myrmica* (*Myrmica*), p. 791.

*Solenopsis madara* Roger. Transf. from Unrecognized Forms of Subgenus *Diplorhoptrum*, p. 814.

- Myrmica novaeboracensis* Buckley. Transf. from Unrecognized Forms of Subgenus *Crematogaster*, p. 810.
- Myrmica opposita* Say. Transf. from Unrecognized Forms of *Aphaenogaster* Subgenus *Attomyrma*, p. 798.
- Atta pennsylvanica* Buckley. Transf. from Unrecognized Forms of Genus *Pheidole*, p. 806.
- Atta picea* Buckley. Transf. from Unrecognized Forms of Genus *Pheidole*, p. 806.
- Tetramorium silvestrii* Santschi. Transf. to *Leptothorax* (*Myrafant*), p. 819.
- Oecodoma tardigrada* Buckley. Transf. from Unrecognized Forms of *Trachymyrmex*, p. 831.
- \**Pheidole pubiventris* r. *timmi* Forel, 1901. Mitt. Naturh. Mus. Hamburg 18: 62. ♀ 2♂. ("Probably of Mexican origin—Dr. R. Timm.")

### Subfamily DOLICHODERINAE

#### DOLICHODERUS subgenus HYPOCLINEA Mayr, pp. 833-835

Taxonomy: W. L. Brown, 1950. Wasmann Jour. Biology 8: 249—G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172 (larvae).

*mariae* Forel.

*Dolichoderus* (*Hypoclinea*) *mariae davis* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 334).

*Dolichoderus* (*Hypoclinea*) *mariae* var. *blatchleyi* W. M. Wheeler (syn. by Creighton, loc. cit. supra).

*mariae davis* W. M. Wheeler. Syn. of *mariae* Forel.

*mariae* var. *blatchleyi* W. M. Wheeler. Syn. of *mariae* Forel.

*plagiatus* (Mayr). N. Dak.

*Dolichoderus* (*Hypoclinea*) *plagiatus* var. *inornatus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 335).

*plagiatus pustulatus* var. *beutenmuelleri* W. M. Wheeler. Syn. of *pustulatus* Mayr.

*plagiatus* var. *inornatus* W. M. Wheeler. Syn. of *plagiatus* (Mayr).

*pustulatus* Mayr.

*Dolichoderus* (*Hypoclinea*) *plagiatus pustulatus* var. *beutenmuelleri* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 335).

*taschenbergi* (Mayr).

*Dolichoderus* (*Hypoclinea*) *taschenbergi* var. *aterrimus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 336).

*taschenbergi* var. *aterrimus* W. M. Wheeler. Syn. of *taschenbergi* (Mayr).

#### Genus LIOMETOPUM Mayr, p. 835

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172, 181 (larvae).

*apiculatum* Mayr, changed status.

*Liometopum apiculatum apiculatum* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 339).

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 181, pl. 1, figs. 23-24 (larva).

*apiculatum luctuosum* W. M. Wheeler. A subsp. of *occidentale* Emery.

*occidentale* Emery. Reduced to subsp. rank.

*occidentale luctuosum* W. M. Wheeler, changed status. Wyo.

*Liometopum apiculatum luctuosum* W. M. Wheeler. A subsp. of *occidentale* not of *apiculatum* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 339).

*occidentale occidentale* Emery, changed status.

*Liometopum occidentale* Emery. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 339).

Unrecognized Species of *Liometopum* Mayr, p. 835

Delete from Catalog. Transf. *Formica masonia* Buckley to Unrecognized Forms of Dolichoderinae, p. 838.

### Genus IRIDOMYRMEX Mayr, pp. 835-836

Biology: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172, 184.

*analis* (E. André). A subsp. of *pruinusos* (Roger).

*humilis* (Mayr).

Biology: Gallardo, 1915. Buenos Aires Mus. Nac. de Hist., Nat. An. 27: 23-25.—Mallis, 1942. Sci. Monthly 55: 536-545.

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 186 (larva).

*iniquus nigellus* Emery, changed status.

*Iridomyrmex iniquus* var. *nigellus* Emery. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 342).

*iniquus* var. *nigellus* Emery. Raised to subsp. rank.

*pruinusos* (Roger). Reduced to subsp. rank.

*pruinusos analis* (E. André), changed status.

*Iridomyrmex analis* (E. André). Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 343).

*Iridomyrmex pruinusos* var. *testaceus* Cole, (syn. by Creighton, *loc. cit. supra*).

*pruinusos pruinusos* (Roger), changed status.

*Iridomyrmex pruinusos* (Roger). Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 342).

Biology: W. M. Wheeler, 1911. Harvard Univ., Mus. Compar. Zool. Bul. 54: 497.

Taxonomy: Santschi, 1930. Soc. Roy. Ent d'Égypte Bul. 23: 81, figs. 2-3.—G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 185, pl. 3, figs. 1-6 (larva).

*pruinusos* var. *testaceus* Cole. A syn. of *pruinusos analis* (E. André).

### DORYMYRMEX subgenus CONOMYRMA Forel, p. 837

\**Conomyrma* subg. *Biconomyrma* Kusnezov, 1952. Acta Zool. Lilloana (Tucuman) 10: 429-430. Invalid. No genotype designated.

Taxonomy: Santschi, 1922. Soc. Vaud. des Sci. Nat. Bul. 54: 365.—Kusnezov, 1952. Acta Zool. Lilloana 10: 427, 429, 438-448, fig. 1, nos. 9-12.

*pyramicus bicolor* W. M. Wheeler, changed status.

*Dorymyrmex (Conomyrma) pyramicus* var. *bicolor* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 349).

*pyramicus flavopectus* M. R. Smith. Ala., Ga., Miss.

*pyramicus pyramicus* (Roger). Oreg.

*Dorymyrmex (Conomyrma) pyramicus* var. *flavus* McCook (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 348).



*Dorymyrmex (Conomyrma) pyramicus* var. *niger* Pergande (syn. by Creighton, *op. cit. supra*, p. 349).

*Dorymyrmex (Conomyrma) pyramicus* var. *smithi* Cole (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 183, pl. 2, figs. 11-18 (larva).

*pyramicus* var. *bicolor* W. M. Wheeler. Raised to subsp. rank.

*pyramicus* var. *flavus* McCook. A Syn. of *pyramicus pyramicus* (Roger).

*pyramicus* var. *niger* Pergande. Syn. of *pyramicus pyramicus* (Roger).

*pyramicus* var. *smithi* Cole. Syn. of *pyramicus pyramicus* (Roger).

\**wheeleri* (Kusnezov). Ariz. (Tucson).

*Conomyrma* (? *Biconomyrma*) *wheeleri* Kusnezov, 1952. Acta Zool. Lilloana (Tucuman) 10: 438. ♀.

#### Genus TAPINOMA Foerster, pp. 837-838

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 172, 195 (larvae).

Delete "Preocc." and "N. syn." after original citation of *Micromyrma* Dufour; *Tapinoma Dufourii* Donisthorpe was unnecessarily proposed as a replacement name for *Micromyrma pygmaea* Dufour.

*melanocephalum* (Fabricius). Ont.

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 197 (larva).

*sessile* (Say).

Biology: Weber, 1941. Canad. Ent. 73: 140-141.

Taxonomy: G. C. and J. Wheeler, 1951. Wash. Ent. Soc. Proc. 53: 196, pl. 4, figs. 8-12 (larva).

#### Unrecognized Form of *Tapinoma* Foerster, p. 838

Delete from Catalog. Transf. *Bothriomyrmex dimmocki* W. M. Wheeler to Unrecognized Forms of Dolichoderinae, p. 838.

#### Unrecognized Forms of Dolichoderinae, p. 838

*Bothriomyrmex dimmocki* W. M. Wheeler. Transf. from Unrecognized Form of *Tapinoma*, p. 838.

*Formica masonia* Buckley. Transf. from Unrecognized Species of *Liometopum*, p. 835.

### Subfamily FORMICINAE

Taxonomy: W. M. Wheeler, 1920. Psyche 27: 51.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Pt. 1, 46: 126-171, pl. 1, figs. 1-23; pl. 2, figs. 1-27; pl. 3, figs. 1-28; pl. 4, figs. 1-22 (larvae).—G. C. and J. Wheeler, *op. cit.*, 46: 175-217, pl. 5, figs. 1-20; pl. 6, figs. 1-28; also text figs. 1-2 (larvae).

#### BRACHYMYRMEX subgenus BRACHYMYRMEX Mayr, pp. 838-839

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 47: 129, 139 (larvae).

*depilis* Emery. Calif., Idaho, N. Dak., N. Mex.

*Brachymyrmex (Brachymyrmex) nanellus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 359).

\**Brachymyrmex depilis flavescens* Grundmann, 1952. Kans. Ent. Soc. Jour. 25: 117. ♀. (Syn. by Cole, 1953. Ent. News. 64: 266).

Biology: Cole, 1940. Amer. Midland Nat. 24: 65-66.—Headley, 1952. Ent. Soc. Amer. Ann. 45: 436, 439.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 47: 139, pl. 2, figs. 10-15 (larva).

\**depilis flavescens* Grundmann. Syn. of *depilis* Emrey.

*nanellus* W. M. Wheeler. Syn. of *depilis* Emery.

**CAMPONOTUS subgenus CAMPONOTUS Mayr, pp. 839-842**

Taxonomy: W. M. Wheeler, 1921. Psyche 28: 17.—International Comn. Zool. Nomencl. 1950. Bul. Zool. Nomencl. 4: 408.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 181, pl. 5, figs. 1-20, text fig. 1 (larvae).

*acutirostris* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.

*acutirostris* var. *clarigaster* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843, and syn. under *acutirostris*.

*americanus* Mayr, changed status. Mich.

*Camponotus (Camponotus) castaneus americanus* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 365).

*Camponotus (Camponotus) castaneus rufinasis* Santschi (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 185, text fig. 1 (larva).

*castaneus americanus* Mayr. Raised to sp. rank.

*castaneus castaneus* (Latreille). Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.

*castaneus rufinasis* Santschi. Syn. of *americanus* Mayr.

*ferrugineus* (Fabricius), changed status. Conn., Mass., Mich.

*Camponotus (Camponotus) herculeanus pennsylvanicus* var. *ferrugineus* (Fabricius). Raised to sp. rank (*teste*, W. L. Brown, 1950. Ent. News 61: 158-159).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 188 (larva).

\**herculeanus herculeanus* (Linnaeus). N. H.

*Camponotus (Camponotus) herculeanus* var. *whymperi* Forel (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 367).

Ecology: W. L. Brown, 1949. Ent. News 60: 99.—Weber, 1950. Amer. Ent. Soc. Trans. 76: 188.—W. L. Brown, 1955. Ent. News 66: 47-48.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 185-187 (larva).

*herculeanus ligniperdus* var. *noveboracensis* (Fitch). Raised to sp. rank.

*herculeanus modoc* W. M. Wheeler, changed status.

*Camponotus (Camponotus) herculeanus* var. *modoc* W. M. Wheeler. Raised to subsp. rank (*teste* W. L. Brown, 1950. Ent. News 61: 158).

*herculeanus pennsylvanicus* (DeGeer). Raised to sp. rank.

*herculeanus pennsylvanicus* var. *ferrugineus* (Fabricius). Raised to sp. rank.

*herculeanus* var. *modoc* W. M. Wheeler. Raised to subsp. rank.

*herculeanus* var. *whymperi* Forel. Syn. of *herculeanus herculeanus* (Linnaeus).

*noveboracensis* (Fitch), changed status.

*Camponotus (Camponotus) herculeanus ligniperdus* var. *noveboracensis* (Fitch). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 369).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 182-185, pl. 5, figs. 1-13 (larva).

- ocreatus ocreatus* Emery. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- ocreatus primipilaris* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843, as a syn. of *ocreatus ocreatus* Emery.
- pennsylvanicus* (DeGeer), changed status.
- Camponotus (Camponotus) herculeanus pennsylvanicus* (DeGeer). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ. Mus. Compar. Zool. Bul. 104: 367).
- Morphology: Forbes, 1952. N. Y. Ent. Soc. Jour. 60: 157-171, pl. 15, figs. 1-6; pl. 16, figs. 7-10; pl. 17, figs. 11-18 (male genitalia).—Forbes, 1954. Jour. Morph. 95: 523-548, pl. 1, figs. 1-4; pl. 2, figs. 5-6; pl. 3, figs. 7-14; pl. 4, figs. 15-19 (male reproductive system).—Forbes, 1956. Insectes Sociaux 3: 505-511, figs. 1-6 (male digestive tract).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 187-188 (larva).
- \**quercicola* M. R. Smith. Calif. (Tanbark Flat, Los Angeles Co.).
- Camponotus (Camponotus) quercicola* M. R. Smith, 1953. N. Y. Ent. Soc. Jour. 61: 211-214. ♀ 2f.
- sansabeanus bulimosus* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus maccooki* Forel. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus sansabeanus* (Buckley). Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus sansabeanus* var. *torrefactus* W. M. Wheeler. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- sansabeanus vicinus* Mayr. Transf. to *Camponotus* subg. *Tanaemyrmex* Ashmead, p. 843.
- schaefferi* W. M. Wheeler. Transf. from *Camponotus* subg. *Myrmentoma* Forel, p. 845 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 371).
- texanus* W. M. Wheeler. Transf. from *Camponotus* subg. *Myrmentoma* Forel, p. 845 (*teste* Creighton, 1950, *loc. cit. supra*.)

#### Unrecognized Forms of Subgenus *Camponotus* Mayr, p. 842

Delete from Catalog. Transf. *Camponotus herculeanus herculeanus* *herculeano-pennsylvanicus* Forel, *Camponotus herculeanus ligniperdus* var. *rubens* Wheeler and *Formica semi-punctata* Kirby to Unrecognized Forms of Subfamily Formicinae, p. 875.

#### CAMPONOTUS subgenus TANAEMYRMEX Ashmead, p. 843

- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 196 (larvae).
- acutirostris* W. M. Wheeler. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 839 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 375).
- Camponotus (Camponotus) acutirostris* var. *clarigaster* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- acutirostris* var. *clarigaster* W. M. Wheeler. Syn. of *acutirostris* W. M. Wheeler.
- castaneus* (Latreille), changed status. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 839.
- Camponotus (Camponotus) castaneus castaneus* (Latreille). Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 375).



**fumidus festinatus** (Buckley), changed status.

**Camponotus (Tanaemyrmex) fumidus** var. **festinatus** (Buckley). Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 376).

**Camponotus (Tanaemyrmex) fumidus** var. **spurcus** W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

**fumidus** var. **spurcus** W. M. Wheeler. Syn. of **fumidus festinatus** (Buckley).

**maccooki** Forel, changed status. Transf. from **Camponotus** subg. **Camponotus** Mayr, p. 841.

**Camponotus (Camponotus) sansabeanus maccooki** Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 377).

**Camponotus (Camponotus) sansabeanus vicinus** var. **semitestaceus** Emery (syn. by Creighton, *loc. cit. supra*).

**Camponotus (Camponotus) sansabeanus dumetorum** W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

**ocreatus** Emery, changed status. Ariz., N. Mex. Transf. from **Camponotus** subg. **Camponotus** Mayr, p. 841.

**Camponotus (Camponotus) ocreatus ocreatus** Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 378).

**Camponotus (Camponotus) ocreatus primipilaris** W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 272.

**ocreatus primipilaris** W. M. Wheeler. Syn. of **ocreatus** Emery.

**sansabeanus bulimosus** W. M. Wheeler. N. Mex. Transf. from **Camponotus** subg. **Camponotus** Mayr, p. 841 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 379).

**sansabeanus dumetorum** W. M. Wheeler. Syn. of **maccooki** Forel.

**sansabeanus maccooki** Forel. Raised to sp. rank.

**sansabeanus sansabeanus** (Buckley). Transf. from **Camponotus** subg. **Camponotus** Mayr, p. 841 (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 378).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 196 (larva).

**sansabeanus sansabeanus** var. **torrefactus** W. M. Wheeler. A subsp. of **sansabeanus** (Buckley).

**sansabeanus torrefactus** W. M. Wheeler, changed status. Transf. from **Camponotus** subg. **Camponotus** Mayr, p. 841.

**Camponotus (Camponotus) sansabeanus sansabeanus** var. **torrefactus** W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 379).

**sansabeanus vicinus** Mayr. Raised to sp. rank.

**sansabeanus vicinus** var. **infernalis** W. M. Wheeler. Syn. of **vicinus** Mayr.

**sansabeanus vicinus** var. **luteangulus** W. M. Wheeler. Syn. of **vicinus** Mayr.

**sansabeanus vicinus** var. **maritimus** W. M. Wheeler. Syn. of **vicinus** Mayr.

**sansabeanus vicinus** var. **nitidiventris** Emery. Syn. of **vicinus** Mayr.

**sansabeanus vicinus** var. **plorabilis** W. M. Wheeler. Syn. of **vicinus** Mayr.

**sansabeanus vicinus** var. **semitestaceus** Emery. Syn. of **maccooki** Forel.

**socius** Roger.

**Camponotus (Tanaemyrmex) socius** var. **osceola** W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Comp. Zool. Bul. 104: 379).

**socius** var. **osceola** W. M. Wheeler. Syn. of **socius** Roger.

*vicinus* Mayr, changed status. Transf. from *Camponotus* subg. *Camponotus* Mayr, p. 841.

*Camponotus (Camponotus) sansabeanus vicinus* Mayr. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 381).

*Camponotus (Camponotus) sansabeanus vicinus* var. *nitidiventris* Emery (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *infernalis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *luteangulus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *maritimus* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*Camponotus (Camponotus) sansabeanus vicinus* var. *plorabilis* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

#### **CAMPONOTUS subgenus MYRMOTHRIX Forel, pp. 843-844**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 196 (larvae).

*abdominalis floridanus* (Buckley). Ala.

#### **CAMPONOTUS subgenus MYRMENTOMA Forel, pp. 844-846**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 193, pl. 5, figs. 15-16 (larvae).

*caryae caryae* (Fitch). Mich.

*nearcticus* Emery. Colo., N. Dak., Utah.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 193, pl. 5, figs. 15-16 (larva).

*rasilis* W. M. Wheeler. Colo., Utah.

*schaefferi* W. M. Wheeler. Transf. to *Camponotus* subg. *Camponotus* Mayr, p. 841.

*subbarbatus* Emery. Mich., N. C., N. Dak.

*texanus* W. M. Wheeler. Transf. to *Camponotus* subg. *Camponotus* Mayr, p. 841.

#### **Unrecognized Forms of Subgenus Myrmentoma Forel, p. 846**

Delete from Catalog. Transf. *Formica atra* Buckley and *Formica septentrionale* Buckley to Unrecognized Forms of Subfamily Formicinae, p. 875.

#### **CAMPONOTUS subgenus COLOBOPSIS Mayr, p. 846**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 188, fig. 2 (larvae).

*cerberulus* Emery.

Taxonomy: Creighton, 1952. Psyche 59: 148-153.

*hunteri* W. M. Wheeler, changed status.

*Camponotus (Colobopsis) pylartes* var. *hunteri* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 393).

*impressus* Roger.

Taxonomy: M. R. Smith, 1955. Brooklyn Ent. Soc. Bul. 50: 98. ♀.

*mississippiensis* M. R. Smith. Fla.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 188-190, fig. 2, a-g (larva).

\**papago* Creighton. Ariz. (Baboquivari Mts.)

*Camponotus (Colobopsis) papago* Creighton, 1952. Psyche 59: 153-162, pl. 13, figs. 1-3, text. figs. 1, 2. ♀ 2 ♀ ♂.

*pylartes* var. *hunteri* W. M. Wheeler. Raised to sp. rank.

**CAMPONOTUS subgenus MANNIELLA W. M. Wheeler, p. 847**

Delete from Catalog. No representatives in the United States.

*ulcerosus* W. M. Wheeler. Transf. to *Camponotus* subg. *Myrmaphaenus* Emery, p. 847.

**CAMPONOTUS subgenus MYRMAPHAENUS Emery, p. 847**

*bruesi* W. M. Wheeler. Syn. of *ulcerosus* W. M. Wheeler.

*ulcerosus* W. M. Wheeler. Transf. from *Camponotus* subg. *Manniella*, p. 847.  
*Camponotus (Myrmaphaenus) bruesi* W. M. Wheeler (syn. by Creighton, 1951. *Psyche* 58: 47).

Biology and Taxonomy: Creighton, 1951. *Psyche* 58: 47-64, pl. 5, figs. 1-5, text figs. 1-3.

Biology: Creighton, 1953. *Psyche* 60: 82-84.

**CAMPONOTUS subgenus MYRMOBRACHYS Forel, p. 847**

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 194-195 (larvae).

\**planatus* Roger. Cuba, So. Fla., Brownsville area of Tex. and north. Mexico.

*Camponotus planatus* Roger, 1863. *Berlin. Ent. Ztschr.* 7: 148. ♀ ♀ ♂.  
Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 194 (larva).

*planatus* var. *continentis* Forel. Delete from Catalog and transf. refs. on Biology and Taxonomy to *planatus* Roger.

**Unrecognized Form of *Camponotus* Mayr, p. 847**

Delete from Catalog. Transf. *Formica lauta* Say to Unrecognized Forms of Subfamily Formicinae, p. 875.

**PARATRECHINA subgenus PARATRECHINA Motschoulsky, pp. 847-848**

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 143 (larvae).

**PARATRECHINA subgenus NYLANDERIA Emery, pp. 848-849**

*arenivaga* (W. M. Wheeler). Subsp. of *melanderi* W. M. Wheeler.

*arenivaga* var. *faisonensis* (Forel). Syn. of *melanderi arenivaga* (Forel).

*bruesii* (W. M. Wheeler). ? Ariz., Fla.

\**fulva* (Mayr). South. Texas to Argentina. In greenhouses farther north in the U. S., especially in States along the Atlantic Seaboard.

*Prenolepis fulva* Mayr, 1862. *Zool. Bot. Gesell. Wien, Verh.* 12: 698.  
♀ ♀.

Taxonomy: Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 406-407.

*fulva pubens* (Forel). Delete from Catalog and replace with *fulva* (Mayr).

*melanderi arenivaga* (W. M. Wheeler), changed status. Fla.

*Paratrechina (Nylanderia) arenivaga* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 408-409).

*Paratrechina (Nylanderia) arenivaga* var. *faisonensis* (Forel) (syn. by Creighton, *loc. cit. supra*).

*melanderi melanderi* (W. M. Wheeler), changed status. Ariz.

*Paratrechina (Nylanderia) vividula melanderi* (W. M. Wheeler). Incorrectly placed under *vividula* (*teste* Creighton 1950. *Harvard Univ., Mus. Compar. Zool. Bul.* 104: 407).

Taxonomy: G. C. and J. Wheeler, 1953. *Ent. Soc. Amer. Ann.* 46: 144, pl. 2, figs. 16-20 (larva).



*parvula* (Mayr). Mass., Mich.

*Paratrechina* (*Nylanderia*) *parvula* var. *grandula* (Forel), (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 409).

*parvula* var. *grandula* (Forel). Syn. of *parvula* (Mayr).

*vividula melanderi* (W. M. Wheeler). Subsp. of *melanderi* (W. M. Wheeler).

### Genus PRENOLEPIS Mayr, pp. 849-850

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 142 (larvae).

*imparis arizonica* W. M. Wheeler, changed status.

*Prenolepis imparis* var. *arizonica* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 414).

*imparis californica* W. M. Wheeler, changed status.

*Prenolepis imparis* var. *californica* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 414).

*imparis coloradensis* W. M. Wheeler, changed status.

*Prenolepis imparis* var. *coloradensis* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 415).

*imparis imparis* (Say), changed status. Fla., N. Mex.

*Prenolepis imparis* (Say). Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 413).

*Prenolepis imparis* var. *minuta* Emery (syn. by Creighton, 1950, *op. cit.*, p. 414).

*Prenolepis imparis* var. *testacea* Emery (syn. by Creighton, *loc. cit. supra*).

*Prenolepis imparis* var. *pumila* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 142-143, pl. 2, figs. 21-27 (larva).

*imparis* var. *arizonica* W. M. Wheeler. Raised to subsp. rank.

*imparis* var. *californica* W. M. Wheeler. Raised to subsp. rank.

*imparis* var. *coloradensis* W. M. Wheeler. Raised to subsp. rank.

*imparis* var. *minuta* Emery. Syn. of *imparis imparis* (Say).

*imparis* var. *pumila* W. M. Wheeler. Syn. of *imparis imparis* (Say).

*imparis* var. *testacea* Emery. Syn. of *imparis imparis* (Say).

### LASIUS subgenus LASIUS Fabricius, pp. 850-851

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 147-150, pl. 3, figs. 1-8 (larvae).

Revision: Wilson, 1955. Hymenopt. Studien 1: 36-38. ♂ 11-13, 26-111, text figs. 1-10, pl. 1, figs. 1-9.

Delete Fabricius 1804 and replace with Fabricius [1804-1805].

\**alienus* (Foerster). Eurasia and N. Amer. In N. Amer. from N. S. and south. B. C. to north. Fla. and the mts. of Durango, Mexico.

*Formica aliena* Foerster, 1850. Hymenopt. Studien 1: 36-38. ♂ ♀.

*Lasius* (*Lasius*) *niger alienus* var. *americanus* Emery (syn. by Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 77).

\**Lasius niger alienus* var. *alieno-americanus* W. M. Wheeler, 1917. Amer. Acad. Arts and Sci. Proc. 52: 525-526. ♀. (Syn. by Wilson, *loc. cit. supra*.)

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 147-148, pl. 3, figs. 1-8 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 77-89, text. figs. 1, 6-8, pl. 1, fig. 5.

♂ ♀ ♂.

\***crypticus** Wilson. Alta. and N. Dak. to N. Mex., west to Idaho, Oreg., Utah, and Calif. Abundant in Great Plains and common in Rocky Mts. and the Great Basin.

**Lasius** (*Lasius*) **crypticus** Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 104-108, text fig. 10. ♀ ♀ ♂.

**neoniger** Emery, changed status. Que. and Fla. west to Idaho and N. Mex. Uncommon in south. Rocky Mts. and unknown from Pacific Northwest.

**Lasius** (*Lasius*) **niger** var. **neoniger** Emery. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 97).

Taxonomy: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 97-104, text fig. 9, pl. 1, fig. 3. ♀ ♀ ♂.

\***niger** (Linnaeus). Eurasia and N. Amer. In N. Amer. from Pacific Northwest through most of the Great Basin, the Rocky Mts., and north. Sierra Nevada.

**Formica nigra** Linnaeus, 1758. Syst. Nat. Ed. 10, 1: 580. ♀.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 148-150 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 59-77, text figs. 6-8, pl. 1, figs. 6-7. ♀ ♀ ♂.

\***niger alienus** var. **alieno-americanus** W. M. Wheeler. Syn. of **alienus** (Foerster).

**niger alienus** var. **americanus** Emery. Syn. of **alienus** (Foerster).

**niger sitkaënsis** Pergande. Raised to sp. rank.

**niger** var. **neoniger** Emery. Raised to sp. rank.

\***sitiens** Wilson. Ariz., Colo., N. Mex.; Mexico (Durango).

**Lasius** (*Lasius*) **sitiens** Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 108-111, text fig. 10. ♀ ♀ ♂.

**sitkaënsis** Pergande, changed status. East. Que. to Mass., west to southeast. Alaska, Ariz., and Calif., and an isolated area in mts. of N. C., Va., W. Va.

**Lasius** (*Lasius*) **niger sitkaënsis** Pergande. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 36).

Taxonomy: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 36-47, text figs. 3, 4; pl. 1, figs. 1, 4. ♀ ♀ ♂.

#### \***LASIUS** subgenus **CAUTOLASIUS** Wilson

(= *Lasius* subg. *Chthonolasius* Ruzsky, in part, p. 851)

**Lasius** subg. **Cautolasius** Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 13.

Type: **Formica flava** Fabricius. Orig. desig.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 151-154, pl. 3, figs. 17-21 (larvae).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 13-14, 111-138, text figs. 11-14.

**brevicornis brevicornis** Emery. Syn. of **flavus** (Fabricius).

**brevicornis microps** W. M. Wheeler. Syn. of **flavus** (Fabricius).

\***fallax** Wilson. Mont. and Wash. to Utah, Colo., and Ariz.

**Lasius** (*Cautolasius*) **fallax** Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 130-133. ♀ ♀ ♂.

\***flavus** (Fabricius). Eurasia and N. Amer. In N. Amer. abundant through most of the eastern half, less abundant in south. Rocky Mts. and rare or absent in north. Rocky Mts. and Pacific Northwest.

**Formica flava** Fabricius, 1781. Species Insectorum 1: 491. ♀.

**Lasius** (*Chthonolasius*) **brevicornis brevicornis** Emery (syn. by Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 112).

**Lasius** (*Chthonolasius*) **brevicornis microps** W. M. Wheeler (syn. by Wilson, *loc. cit. supra*).

*Lasius (Chthonolasius) flavus claripennis* W. M. Wheeler (syn. under *microps* by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 422).

\**Lasius (Chthonolasius (!)) helveolus* (as *helvus* in fig. 326) Cook, 1950. Ants of Calif., Palo Alto, p. 327. ♀.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 152-154 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 112-130, text figs. 11-14. ♀ ♀ ♂.

*flavus claripennis* W. M. Wheeler. Syn. of *flavus* (Fabricius).

*flavus nearcticus* W. M. Wheeler. Raised to sp. rank.

*helveolus* Cook. Syn. of *flavus* (Fabricius).

*nearcticus* W. M. Wheeler, changed status. Common throughout most of forested area from southeast. Canada to south. Appalachian Mts., occasional as far west as S. Dak and Wyo.

*Lasius (Chthonolasius) flavus nearcticus* W. M. Wheeler. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 133).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 151-152 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 133-136, text figs. 11-13. ♀ ♀ ♂.

#### LASIUS subgenus CHTHONOLASIUS Ruzsky, pp. 851-852

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 150-151, pl. 3, figs. 9-16 (larvae).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 13-14, 150-192, text figs. 15-17; pl. 2, figs. 1, 3-5.

Delete "Type: *Formica flava*" and all references pertaining to it. Replace with "Type: *Formica umbrata* Nylander. Desig. by Emery, 1925."

*brevicornis brevicornis* Emery. Transf. to subg. *Cautolasius* as a syn. of *flavus* (Fabricius), p. 850.

*brevicornis microps* W. M. Wheeler. Transf. to subg. *Cautolasius* as a syn. of *flavus* (Fabricius), p. 850.

*flavus claripennis* W. M. Wheeler. Transf. to subg. *Cautolasius* as a syn. of *flavus* (Fabricius), p. 850.

*flavus nearcticus* W. M. Wheeler. Transf. to subg. *Cautolasius*, p. 850. Raised to sp. rank.

*humilis* W. M. Wheeler. Colo., Nev., N. Mex.

Taxonomy and Ecology: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 185-187. ♀ ♀.

*minutus* Emery, changed status. East. N. Amer. from N. S. to Va., west to Minn. and Iowa.

*Lasius (Chthonolasius) umbratus minutus* Emery. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 180).

Taxonomy: Wilson, 1955. *Op. cit.*, pp. 180-182, pl. 2, fig. 4.

\**nevadensis* Cole. Nev. (Kyle Canyon in Charleston Mts., near Las Vegas).

*Lasius (Chthonolasius) nevadensis* Cole, 1956. Tenn. Acad. Sci. Jour. 31: 26-27. ♀ ♀ ♂.

*pilosus* M. R. Smith. Syn. of *vestitus* W. M. Wheeler.

*speculiventris* Emery, changed status. Pa. and N. J. to Minn. and Kans.

*Lasius (Chthonolasius) umbratus speculiventris* Emery. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 171).

Taxonomy: Wilson, 1955. *Op. cit.*, pp. 171-173. ♀ ♀ ♂.

*subumbratus* Viereck, changed status. N. S. and Maine to Sask. and all States west of Mont. to Ariz.



*Lasius (Chthonolasius) umbratus subumbratus* Viereck. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 175).

Taxonomy: Wilson, 1955. *Op. cit.*, pp. 175-180, text fig. 17. ♀ ♀ ♂.

\**umbratus* (Nylander). Eurasia and N. Amer. In east. N. Amer. from N. S. to Gulf States, rare in the latter, fairly common in the southern Rocky Mts. but sparse or absent over most of west. N. Amer. No records from north. Calif. to B. C. or north. Idaho.

*Formica umbrata* Nylander, 1846. Acta. Soc. Sci. Fenn. 2: 1048-1050. ♀ ♂.

*Lasius (Chthonolasius) umbratus mixtus* var. *aphidicola* (Walsh) (syn. by Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 150).

*Lasius (Chthonolasius) umbratus epinotalis* Buren (syn. by Wilson, 1955, *op. cit.*, p. 152).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 150-151, pl. 3, figs. 9-16 (larva).—Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 150-167, text figs. 1, 15-17, pl. 1, fig. 1. ♀ ♀ ♂.

*umbratus epinotalis* Buren. Syn. of *umbratus* (Nylander).

*umbratus minutus* Emery. Raised to sp. rank.

*umbratus mixtus* var. *aphidicola* (Walsh). Syn. of *umbratus* (Nylander).

*umbratus speculiventris* Emery. Raised to sp. rank.

*umbratus subumbratus* Viereck. Raised to sp. rank.

*umbratus vestitus* W. M. Wheeler. Raised to sp. rank.

*vestitus* W. M. Wheeler, changed status. Idaho and Calif. to B. C.

*Lasius (Chthonolasius) umbratus vestitus* W. M. Wheeler. Raised to sp. rank (*teste* Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 173).

*Lasius (Chthonolasius) pilosus* M. R. Smith (syn. by Wilson, 1955, *loc. cit. supra*).

Taxonomy: Wilson, 1955. Harvard Univ., Mus. Compar. Zool. Bul. 113: 173-175. ♀ ♀.

#### Genus ACANTHOMYOPS Mayr

(= *Lasius* subg. *Acanthomyops* pp. 852-854 Mayr)

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 154-156, pl. 3, figs. 22-28 (larvae).

Place author names of all valid species and subspecies in parentheses.

*claviger californicus* (W. M. Wheeler), changed status.

*Lasius (Acanthomyops) interjectus californicus* W. M. Wheeler. A subspecies of *claviger*, not of *interjectus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 430).

*claviger claviger* (Roger).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 155-156, pl. 3, figs. 27-28 (larva).

*claviger coloradensis* (W. M. Wheeler), changed status.

*Lasius (Acanthomyops) interjectus coloradensis* W. M. Wheeler. A subsp. of *claviger*, not of *interjectus* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 429).

Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 284.

*claviger subglaber* Emery. Raised to sp. rank.

*clavigeroides* Buren. Syn. of *subglaber* (Emery).

*interjectus californicus* (W. M. Wheeler). Subsp. of *claviger* (Roger).

*interjectus coloradensis* (W. M. Wheeler). A subsp. of *claviger* (Roger).

**interjectus interjectus** (Mayr).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 156 (larva).

**occidentalis** (W. M. Wheeler). N. Dak.

**plumopilosus** (Buren). Mich.

**subglaber** (Emery), changed status. Tenn.

*Lasius* (*Acanthomyops*) **claviger subglaber** Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 433).

*Lasius* (*Acanthomyops*) **clavigeroides** Buren (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 155, pl. 3, figs. 22-26 (larva).

#### Unrecognized Forms of *Lasius* Fabricius, p. 854

Delete from Catalog. Transf. *Formica monticola* Buckley and *Formica saxicola* Buckley to p. 875 under Unrecognized Forms of Subfamily Formicinae.

#### Genus MYRMECOCYSTUS Wesmael, pp. 854-857

**comatus** W. M. Wheeler, changed status. Ariz., N. Mex.

*Myrmecocystus melliger mendax* var. **comatus** W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 442).

Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 284. ♀.

**flaviceps** W. M. Wheeler, changed status.

*Myrmecocystus yuma* var. **flaviceps** W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 443).

**idahoensis** Cole. Syn. of **mojave** W. M. Wheeler.

**lugubris** W. M. Wheeler. Lower Calif. (Mex.), Mexico.

*Myrmecocystus yuma* W. M. Wheeler (syn. by Creighton, 1956. Amer. Mus. Novitates No. 1807, p. 1).

**melliger californicus** Cole, changed status.

*Myrmecocystus melliger mimicus* var. **californicus**. A subsp. not a var. of **mimicus** (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 445).

**melliger lomaënsis** W. M. Wheeler. Syn. of **mimicus** W. M. Wheeler.

**melliger melliger** Forel.

*Myrmecocystus melliger orbiceps* W. M. Wheeler (syn. by Creighton and Crandall, 1954. Biol. Rev., City College N. Y. 16: 2).

Biology: Creighton and Crandall, 1954. *Op. cit.*, pp. 2-6, figs. 1-4.

**melliger mendax** W. M. Wheeler. Raised to sp. rank.

**melliger mendax** var. **comatus** W. M. Wheeler. Raised to sp. rank.

**melliger mimicus** W. M. Wheeler. Raised to sp. rank.

**melliger mimicus** var. **californicus** Cole. Subsp. of **melliger** Forel.

**melliger mimicus** var. **depilis** Forel. The status of **depilis** is uncertain and it is questionable whether **depilis** occurs in the U. S. or not (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 440).

**melliger mimicus** var. **jesuita** W. M. Wheeler. Syn. of **mimicus** W. M. Wheeler.

**melliger orbiceps** W. M. Wheeler. Syn. of **melliger melliger** Forel.

**melliger semirufus** Emery. Raised to sp. rank.

**melliger semirufus** var. **testaceus** Emery. Syn. of **semirufus** Emery.

**mendax** W. M. Wheeler, changed status. N. Mex.

*Myrmecocystus melliger mendax* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 445).

Taxonomy: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 284. ♀.

**mexicanus hortideorum** McCook, changed status.

*Myrmecocystus mexicanus* var. *horti-deorum* McCook. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 446).

**mexicanus mexicanus** Wesmael, changed status. N. Mex.

*Myrmecocystus mexicanus* Wesmael. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 446).

**mexicanus** var. *horti-deorum* McCook. Raised to subsp. rank.

**mimicus** W. M. Wheeler, changed status.

*Myrmecocystus melliger mimicus* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 446).

*Myrmecocystus melliger mimicus* var. *jesuita* W. M. Wheeler (syn. by Creighton *op. cit. supra*, p. 447).

*Myrmecocystus melliger lomaënsis* W. M. Wheeler (syn. by Creighton, 1950, *loc. cit. supra*).

**mojave** W. M. Wheeler. South. Calif. to south. Idaho.

*Myrmecocystus idahoensis* Cole (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 448).

\***pyramicus** M. R. Smith. Nev. (Nev. Dominion Mine, Pyramid Mining Dist., 5 miles west of Mullen Gap).

*Myrmecocystus pyramicus* M. R. Smith, 1951. Great Basin Nat. 11: 91-94, figs. 1-3. ♀.

**semirufus** Emery, changed status. Oreg.

*Myrmecocystus melliger semirufus* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 449).

*Myrmecocystus melliger semirufus* var. *testaceus* Emery (syn. by Creighton, *loc. cit. supra*).

**yuma** W. M. Wheeler. ? Idaho. Syn. of *lugubris* W. M. Wheeler.

**yuma** var. *flaviceps* W. M. Wheeler. Raised to sp. rank.

#### FORMICA subgenus PROFORMICA Ruzsky, pp. 857-858

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 158-159, pl. 4, figs. 8-10 (larvae).—W. L. Brown and E. O. Wilson, 1955. Psyche 62: 108-129, pl. 2, figs. 1-8.

**bradleyi** W. M. Wheeler. Transf. from *Formica* subg. *Formica* Linnaeus (*sanguinea* group), p. 860 (*teste* W. L. Brown and E. O. Wilson, 1955. Psyche 62: 126).

*Formica (Proformica) neogagates neogagates* var. *morbida* W. M. Wheeler (syn. by W. L. Brown and E. O. Wilson, *loc. cit. supra*). Biology: Beamer and Michener, 1950. Kans. Ent. Soc. Jour. 23: 110-113, fig. 1.

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 168-169, pl. 4, figs. 11-14 (larva).

**lasioides** Emery, changed status. Ariz., Mich., N. Mex.

*Formica (Proformica) neogagates lasioides* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 457).

*Formica (Proformica) neogagates lasioides* var. *vetula* W. M. Wheeler (syn. by Creighton, *op. cit. supra*, p. 458).



*limata* W. M. Wheeler, changed status. N. Mex.

*Formica (Proformica) neogagates lasioides* var. *limata* W. M. Wheeler raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 458).

*neogagates* Emery, changed status. Ariz., N. Mex.

*Formica (Proformica) neogagates neogagates* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 459).

*Formica (Proformica) neogagates neogagates* var. *vinculans* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 158-159, pl. 4, figs. 8-10 (larva).

*neogagates lasioides* Emery. Raised to sp. rank.

*neogagates lasioides* var. *limata* W. M. Wheeler. Raised to sp. rank.

*neogagates lasioides* var. *vetula* W. M. Wheeler. Syn. of *lasioides* Emery.

*neogagates neogagates* Emery. Raised to sp. rank.

*neogagates neogagates* var. *morbida* W. M. Wheeler. Syn. of *bradleyi* W. M. Wheeler.

*neogagates neogagates* var. *vinculans* W. M. Wheeler. Syn. of *neogagates* Emery.

#### **FORMICA subgenus NEOFORMICA W. M. Wheeler, pp. 858-860**

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 159-160, pl. 4, figs. 15-17 (larvae).

*archboldi* M. R. Smith, changed status. Ala.

*Formica (Neoformica) pallide-fulva archboldi* M. R. Smith. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 549).

*pallide-fulva archboldi* M. R. Smith. Raised to sp. rank.

*pallide-fulva delicata* Cole. Syn. of *pallide-fulva nitidiventris* Emery.

*pallide-fulva nitidiventris* Emery.

*Formica (Neoformica) pallide-fulva nitidiventris* var. *fuscata* Emery (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 551).

*Formica (Neoformica) pallide-fulva schaufussi* var. *incerta* Emery (syn. by Creighton, *loc. cit. supra*).

*Formica (Neoformica) pallide-fulva delicata* Cole (syn. by Creighton, *loc. cit. supra*).

Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 159-160, pl. 4, figs. 15-17 (larva).

*pallide-fulva nitidiventris* var. *fuscata* Emery. Syn. of *pallide-fulva nitidiventris* Emery.

*pallide-fulva pallide-fulva* Latreille.

*Formica (Neoformica) pallide-fulva* var. *succinea* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 550).

*pallide-fulva schaufussi* Mayr. A subsp. of *schaufussi* Mayr.

*pallide-fulva schaufussi* var. *dolosa* W. M. Wheeler. A subsp. of *schaufussi* Mayr.

*pallide-fulva schaufussi* var. *incerta* Emery. Syn. of *pallide-fulva nitidiventris* Emery.

*pallide-fulva* var. *succinea* W. M. Wheeler. Syn. of *pallide-fulva pallide-fulva* Latreille.

*schaufussi dolosa* W. M. Wheeler, changed status.

*Formica (Neoformica) pallide-fulva schaufussi* var. *dolosa* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 551).

*schaufussi schaufussi* Mayr, changed status.

*Formica (Neoformica) pallide-fulva schaufussi* Mayr. A subsp. of *schaufussi*, not of *pallide-fulva* (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 551).

### FORMICA subgenus FORMICA Linnaeus, pp. 860-873

Taxonomy: Yarrow, 1950. Internatl. Comn. Zool. Nomencl., Bul. Zool. Nomencl. 4: 408.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 160, (larvae).—E. O. Wilson and W. L. Brown, 1955. Psyche 62: 108-129, pl. 2, figs. 1-8.—Yarrow, 1955. Internatl. Comn. Zool. Nomencl., Bul. Zool. Nomencl. 9: 313-318 (genotype).

*altipetens* W. M. Wheeler, changed status.

*Formica (Formica) cinerea* var. *altipetens* W. M. Wheeler. Raised to sp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 531).

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326-328, fig. 2. ♀.—G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 160, 162, pl. 4, figs. 1-5 (larva).

*bradleyi* W. M. Wheeler. Transf. to *Formica* subg. *Proformica* Ruzsky, p. 857.

\**calviceps* Cole. N. Mex. (Capulin Mt. Natl. Mon.). (In *rufa* group.)

*Formica (Formica) calviceps* Cole, 1954. Tenn. Acad. Sci. Jour. 29: 164-165. ♂.

*cinerea lepida* W. M. Wheeler, changed status. Dakotas to Wash., Calif., Colo., N. Mex.

*Formica (Formica) cinerea* var. *lepida* W. M. Wheeler. Raised to subsp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 531).

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 166.

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.

*cinerea montana* Emery, changed status. N. Mex.

*Formica (Formica) cinerea* var. *montana* Emery. Raised to subsp. rank (teste Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.)

*Formica (Formica) cinerea* var. *neocinerea* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 534).

*Formica (Formica) cinerea* var. *rutilans* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.

*cinerea* var. *altipetens* W. M. Wheeler. Raised to sp. rank.

*cinerea* var. *lepida* W. M. Wheeler. Raised to subsp. rank.

*cinerea* var. *montana* Emery. Raised to subsp. rank.

*cinerea* var. *neocinerea* W. M. Wheeler. Syn. of *cinerea montana* Emery.

*cinerea* var. *rutilans* W. M. Wheeler. Syn. of *cinerea montana* Emery.

*dakotensis dakotensis* Emery, changed status.

*Formica (Formica) dakotensis* Emery. Reduced to subsp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 484).

*Formica (Formica) dakotensis* var. *specularis* Emery (syn. by Creighton, *loc. cit. supra*).

*Formica (Formica) dakotensis* var. *saturata* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*dakotensis montigena* W. M. Wheeler, changed status.

*Formica (Formica) dakotensis* var. *montigena* W. M. Wheeler. Raised to subsp. rank (teste Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 484).

*dakotensis* var. *montigena* W. M. Wheeler. Raised to subsp. rank.

- dakotensis* var. *saturata* W. M. Wheeler. Syn. of *dakotensis dakotensis* Emery.
- dakotensis* var. *specularis* Emery. Syn. of *dakotensis dakotensis* Emery.
- densiventris* Viereck, changed status. (In *microgyna* group).
- Formica (Formica) fusca densiventris* Viereck. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 499).
- Formica (Formica) microgyna rasilis* var. *spicata* W. M. Wheeler (syn. by Cole, 1955. Tenn. Acad. Sci. Jour. 30: 50).
- Formica (Formica) microgyna rasilis* var. *pinetorum* W. M. Wheeler (syn. of *rasilis spicata teste* Creighton, 1950, *op. cit.*, p. 507).
- Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 165.
- difficilis* Emery. Tenn., Va. (4,000 ft.).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 164 (larva).
- emeryi* W. M. Wheeler. Syn. of *subnuda* Emery.
- exsectoides* Forel, changed status. Colo., Kans., N. Mex., Tenn.
- Formica (Formica) exsectoides exsectoides* Forel. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 513).
- Formica (Formica) exsectoides* var. *davisi* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Formica (Formica) exsectoides* var. *hesperia* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 164 (larva).—Cole, 1954. Tenn. Acad. Sci. Jour. 29: 166.
- exsectoides exsectoides* Forel. Raised to sp. rank.
- exsectoides opaciventris* Emery. Raised to sp. rank.
- exsectoides* var. *davisi* W. M. Wheeler. Syn. of *exsectoides* Forel.
- exsectoides* var. *hesperia* W. M. Wheeler. Syn. of *exsectoides* Forel.
- foreliana* W. M. Wheeler. Syn. of *rufibarbis gnava* Buckley.
- fusca* Linnaeus, changed status.
- Formica (Formica) fusca fusca* Linnaeus. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 532).
- Formica (Formica) fusca* var. *subsericea* Say (syn. by Creighton, *loc. cit. supra*).
- Formica (Formica) fusca* var. *subaenescens* Emery (syn. by Creighton, *loc. cit. supra*).
- Formica (Formica) fusca* var. *argentea* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Formica lecontei* Kennedy and Dennis (syn. by Creighton, *loc. cit. supra*).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 164-165 (larva).
- fusca densiventris* Viereck. Raised to sp. rank.
- fusca pruinosa* W. M. Wheeler. Raised to sp. rank.
- fusca pruinosa* var. *lutescens* W. M. Wheeler. Syn. of *neoclara* Emery.
- fusca* var. *algida* W. M. Wheeler. A subsp. of *neorufibarbis* Emery.
- fusca* var. *argentea* W. M. Wheeler. Syn. of *fusca* Linnaeus.
- fusca* var. *gelida* W. M. Wheeler. A subsp. of *neorufibarbis* Emery.
- fusca* var. *marcida* W. M. Wheeler. Raised to sp. rank.
- fusca* var. *neoclara* Emery. Raised to sp. rank.
- fusca* var. *neorufibarbis* Emery. A subsp. of *neorufibarbis* Emery.
- fusca* var. *subaenescens* Emery. Syn. of *fusca* Linnaeus.



*fusca* var. *subsericea* Say. Syn. of *fusca* Linnaeus.

*hewitti* W. M. Wheeler. Colo., Idaho, Nev., N. Mex., Utah, Wash., Wyo.

*impexa* W. M. Wheeler. Minn.

*integra* *haemorrhoidalis* Emery, changed status. B. C.

*Formica (Formica) rufa haemorrhoidalis* Emery. A subsp. of *integra*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 488).

*integra integra* Nylander, changed status.

*Formica (Formica) rufa integra* Nylander. A subsp. of *integra*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 487).

*integra tahoensis* W. M. Wheeler, changed status.

*Formica (Formica) rufa tahoensis* W. M. Wheeler. A subsp. of *integra*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 488).

Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 260. ♀ ♂.

*integroides coloradensis* W. M. Wheeler, changed status.

*Formica (Formica) rufa coloradensis* W. M. Wheeler. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 489).

*integroides integroides* Emery, changed status. B. C.

*Formica (Formica) rufa integroides* Emery. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 488).

*Formica (Formica) rufa subcaviceps* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*integroides planipilis* Creighton, changed status.

*Formica (Formica) rufa planipilis* Creighton. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 490).

Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 259. ♀.

*integroides propinqua* W. M. Wheeler, changed status. Calif. to Wash., along east. slopes Sierra and Cascade Mts.

*Formica (Formica) rufa propinqua* W. M. Wheeler. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 490).

Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 257-259. ♀ ♂.

*integroides subfasciata* W. M. Wheeler, changed status.

*Formica (Formica) rufa subfasciata* W. M. Wheeler. A subsp. of *integroides*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 490).

*laeviceps* Creighton, changed status.

*Formica (Formica) rufa laeviceps* Creighton. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 491).

*lecontei* Kennedy and Dennis. Syn. of *fusca* Linnaeus.

*manni* W. M. Wheeler. Oreg.

*marcida* W. M. Wheeler, changed status. N. Mex., Utah, Wyo.

*Formica (Formica) fusca* var. *marcida* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 534).

*microgyna* W. M. Wheeler, changed status.

*Formica (Formica) microgyna microgyna* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 502).

*Formica (Formica) microgyna* var. *recidiva* W. M. Wheeler (syn. by Creighton, *op. cit.*, p. 504).

- microgyna californica* W. M. Wheeler. A subsp. of *whymperi* Forel.
- microgyna californica* var. *hybrida* W. M. Wheeler. Syn. of *whymperi californica* W. M. Wheeler.
- microgyna rasilis* W. M. Wheeler. Raised to sp. rank.
- microgyna rasilis* var. *pinetorum* W. M. Wheeler. Syn. of *densiventris* Viereck.
- microgyna rasilis* var. *pullula* W. M. Wheeler. Syn. of *whymperi whymperi* Forel.
- microgyna rasilis* var. *spicata* W. M. Wheeler. Syn. of *densiventris* Viereck.
- microgyna scitula* W. M. Wheeler. Raised to sp. rank.
- microgyna spatulata* Buren. Raised to sp. rank.
- microgyna* var. *recidiva* W. M. Wheeler. Syn. of *microgyna* W. M. Wheeler.
- mucescens* W. M. Wheeler, changed status.
- Formica (Formica) rufa mucescens* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 491).
- neoclara* Emery, changed status. Kans.
- Formica (Formica) fusca* var. *neoclara* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 535).
- Formica (Formica) fusca pruinosa* var. *lutescens* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- Biology: La Berge 1952. Kans. Ent. Soc. Jour. 25: 59.
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 165, pl. 4, figs. 6-7 (larva).
- neurufibaris algida* W. M. Wheeler, changed status.
- Formica (Formica) fusca* var. *algida* W. M. Wheeler. A subsp. of *neurufibaris*, not of *fusca* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 537).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 165 (larva).
- neurufibaris gelida* W. M. Wheeler, changed status.
- Formica (Formica) fusca* var. *gelida* W. M. Wheeler. A subsp. of *neurufibaris*, not of *fusca* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 537).
- neurufibaris neurufibaris* Emery, changed status. Ariz., ? Mich., N. Mex.
- Formica (Formica) fusca* var. *neurufibaris* Emery. A subsp. of *neurufibaris*, not of *fusca* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 536).
- nevadensis* W. M. Wheeler. After orig. cit. change ♂ to ♀.
- Taxonomy: Cole, 1956. Tenn. Acad. Sci. Jour. 31: 256-257.
- obscuripes obscuripes* Forel, changed status. Mich., N. Mex.
- Formica (Formica) rufa obscuripes* Forel. A subsp. of *obscuripes*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 492).
- Formica (Formica) rufa melanotica* Emery (syn. by Creighton, *loc. cit. supra*).
- Biology: Sallee and King. 1947. Iowa Acad. Sci. Proc. 54: 349-352.—King and Walters, 1950. *Op. cit.* 57: 469-473, fig. 1.—King and Sallee, 1953. *Op. cit.*, 60: 656-659.
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 165-166 (larva).
- obscuripes ravida* W. M. Wheeler, changed status.
- Formica (Formica) rufa ravida* W. M. Wheeler. A subsp. of *obscuripes*, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 493).

**obscuriventris clivia** Creighton, changed status.

*Formica (Formica) rufa clivia* Creighton. A subsp. of **obscuriventris**, not of *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 494).

Morphology: King, 1955. Iowa Acad. Sci. Proc. 62: 509-513.

**obscuriventris obscuriventris** Mayr, changed status. ? N. Dak.

*Formica (Formica) rufa obscuriventris* Mayr. A subsp. of **obscuriventris**, not *rufa* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 493).

*Formica (Formica) rufa gymnomma* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

**obtusopilosa alticola** W. M. Wheeler, changed status.

*Formica (Formica) obtusopilosa* var. *alticola* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 466).

**obtusopilosa** var. *alticola* W. M. Wheeler. Raised to subsp. rank.

**opaciventris** Emery, changed status. N. Mex.

*Formica (Formica) exsectoides opaciventris* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 514).

Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 166.

Taxonomy: Gregg, 1952. Psyche 59: 14-16. ♀.

**oreas comptula** W. M. Wheeler, changed status. Alta., Iowa, N. Dak.

*Formica (Formica) oreas* var. *comptula* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 494).

**oreas oreas** W. M. Wheeler, changed status. Mont., Wyo.

*Formica (Formica) oreas* W. M. Wheeler. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 494).

Biology: Cole, 1954. Tenn., Acad. Sci. Jour. 29: 165.

**oreas** var. *comptula* W. M. Wheeler. Raised to subsp. rank.

**pergandei** Emery. Syn. of **subintegra** Emery.

**perpilosa** W. M. Wheeler. Kans.

Biology: LaBerge, 1952. Kans. Ent. Soc. Jour. 25: 59.

**pilicornis** Emery.

Taxonomy: Gregg, 1953. Ent. Soc. Wash. Proc. 55: 326, fig. 2. ♀.

**postoculata** Kennedy and Dennis. Ill., Iowa.

**pruinosa** W. M. Wheeler, changed status.

*Formica (Formica) fusca pruinosa* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 538).

**puberula** Emery, changed status.

*Formica (Formica) sanguinea puberula* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 468).

**querquetulana** Kennedy and Dennis. Ohio to New England.

**rasilis** W. M. Wheeler, changed status.

*Formica (Formica) microgyna rasilis* W. M. Wheeler. Raised to sp. rank (*teste* Creighton 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 506).

**rubicunda** Emery, changed status. N. Mex.

*Formica (Formica) sanguinea rubicunda* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 468).

**rufa clivia** Creighton. Subsp. of **obscuriventris** Mayr.



- rufa coloradensis* W. M. Wheeler. Subsp. of *integroides* Emery.
- rufa gymnomma* W. M. Wheeler. Syn. of *obscuriventris obscuriventris* Mayr.
- rufa haemorrhoidalis* Emery. Subsp. of *integra* Nylander.
- rufa integra* Nylander. A subsp. of *integra* Nylander.
- rufa integroides* Emery. A subsp. of *integroides* Emery.
- rufa laeviceps* Creighton. Raised to sp. rank.
- rufa melanotica* Emery. Syn. of *obscuripes obscuripes* Forel.
- rufa mucescens* W. M. Wheeler. Raised to sp. rank.
- rufa obscuripes* Forel. A subsp. of *obscuripes* Forel.
- rufa obscuriventris* Mayr. A subsp. of *obscuriventris* Mayr.
- rufa planipilis* Creighton. A subsp. of *integroides* Emery.
- rufa propinqua* W. M. Wheeler. A subsp. of *integroides* Emery.
- rufa ravida* W. M. Wheeler. A subsp. of *obscuripes* Forel.
- rufa subcaviceps* W. M. Wheeler. Syn. of *integroides integroides* Emery.
- rufa subfasciata* W. M. Wheeler. A subsp. of *integroides* Emery.
- rufa subnitens* Creighton. Raised to sp. rank.
- rufa tahoensis* W. M. Wheeler. A subsp. of *integra* Nylander.
- rufibarbis gnava* Buckley, changed status.
- Formica (Formica) rufibarbis* var. *gnava* Buckley. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 539).
- Formica (Formica) foreliana* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).
- rufibarbis occidua* W. M. Wheeler, changed status.
- Formica (Formica) rufibarbis* var. *occidua* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 539).
- rufibarbis* var. *gnava* Buckley. A subsp. of *rufibarbis* Fabricius.
- rufibarbis* var. *occidua* W. M. Wheeler. A subsp. of *rufibarbis* Fabricius.
- sanguinea aserva* Forel. Syn. of *subnuda* Emery.
- sanguinea puberula* Emery. Raised to sp. rank.
- sanguinea rubicunda* Emery. Raised to sp. rank.
- sanguinea rubicunda* var. *sublucida* W. M. Wheeler. Raised to sp. rank.
- sanguinea subintegra* Emery. Raised to sp. rank.
- sanguinea subintegra* var. *gilvescens* W. M. Wheeler. Syn. of *subintegra* Emery.
- sanguinea subnuda* Emery. Raised to sp. rank.
- scitula* W. M. Wheeler, changed status.
- Formica (Formica) microgyna scitula* W. M. Wheeler. Raised to sp. rank. (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 507).
- spatulata* Buren, changed status. B. C., Mont., N. Dak.
- Formica (Formica) microgyna spatulata* Buren. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 508).
- subintegra* Emery, changed status. N. Dak.
- Formica (Formica) sanguinea subintegra* Emery. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 470).

- Formica (Formica) pergandei* Emery (Syn. by Wilson and Brown, 1955. Psyche 62: 120).
- Formica (Formica) sanguinea subintegra* var. *gilvescens* W. M. Wheeler syn. by Creighton, *loc. cit. supra*).
- sublucida* W. M. Wheeler, changed status.
- Formica (Formica) sanguinea rubicunda* var. *sublucida* W. M. Wheeler. Raised to sp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 471).
- subnitens* Creighton, changed status. B. C., N. Mex., ? Wyo.
- Formica (Formica) rufa subnitens* Creighton. Raised to sp. rank (*teste* Cole, 1955. Tenn. Acad. Sci. Jour. 30: 50).
- Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 165.
- subnuda* Emery, changed status.
- Formica (Formica) sanguinea subnuda* Emery. Raised to sp. rank (*teste* Wilson and W. L. Brown, 1955. Psyche 62: 118).
- Formica (Formica) sanguinea aserva* Forel (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 469).
- Formica (Formica) emeryi* W. M. Wheeler (syn. by Wilson and Brown, *loc. cit. supra*).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 170 (larva).
- subpolita camponoticeps* W. M. Wheeler, changed status. Oreg., Nev.
- Formica (Formica) subpolita var. camponoticeps* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 542).
- subpolita ficticia* W. M. Wheeler, changed status. ? B. C., Utah, Wyo.
- Formica (Formica) subpolita* var. *ficticia* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 542).
- subpolita* var. *camponoticeps* W. M. Wheeler. Raised to subsp. rank.
- subpolita* var. *ficticia* W. M. Wheeler. Raised to subsp. rank.
- ulkei* Emery. Mich., Mont.
- Formica (Formica) ulkei* var. *hebesens* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. 104: 515).
- Taxonomy: G. C. and J. Wheeler, 1953. Ent. Soc. Amer. Ann. 46: 168 (larva).
- ulkei* var. *hebesens* W. M. Wheeler. Syn. of *ulkei* Emery.
- wheeleri* Creighton. Ariz., Colo., N. Mex. Slaves: *Formica fusca* L., *Formica neorufibarbis neorufibarbis* Emery.
- Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 164.—Wilson, 1955. Psyche 62: 130-133.
- whymperi adamsi* W. M. Wheeler, changed status.
- Formica (Formica) whymperi* var. *adamsi* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 509).
- whymperi alpina* W. M. Wheeler, changed status. N. Mex., Utah.
- Formica (Formica) whymperi* var. *alpina* W. M. Wheeler. Raised to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 509).
- Biology: Cole, 1954. Tenn. Acad. Sci. Jour. 29: 165-166.
- whymperi californica* W. M. Wheeler, changed status. Calif. and Wash. to Idaho and Mont.
- Formica (Formica) microgyna californica* W. M. Wheeler. A subsp. of *whymperi*, not of *microgyna* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 510).
- Formica (Formica) microgyna californica* var. *hybrida* W. M. Wheeler (syn. by Creighton, *loc. cit. supra*).

*whymperi whymperi* Forel, changed status. Mont. to B. C. and Wash.

*Formica (Formica) whymperi* Forel. Reduced to subsp. rank (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 508).

*Formica (Formica) microgyna rasilis* var. *pullula* W. M. Wheeler (syn. by Creighton, 1950, *op. cit.*, p. 509).

*whymperi* var. *adamsi* W. M. Wheeler. Raised to subsp. rank.

*whymperi* var. *alpina* W. M. Wheeler. Raised to subsp. rank.

#### Unrecognized Forms of *Formica* Linnaeus, p. 873

Delete from Catalog. Transf. *Formica Connecticutensis* Buckley, *Formica Nortonii* Buckley, *Formica Nova Anglae* Buckley, *Formica politurata* Buckley and *Formica Virginiana* Buckley to p. 875 under Unrecognized Forms of Subfamily Formicinae.

#### Genus *POLYERGUS* Latreille, pp. 873-875

*lucidus lucidus* Mayr. N. Mex.

*Polyergus lucidus montivagus* W. M. Wheeler (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 557).

*lucidus montivagus* W. M. Wheeler. Syn. of *lucidus lucidus* Mayr.

*rufescens breviceps* Emery.

*Polyergus rufescens breviceps* var. *silvestrii* Santschi (syn. by Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 558).

*Polyergus rufescens breviceps* var. *fusciventris* W. M. Wheeler (syn. by Creighton, *op. cit. supra*, p. 559).

*rufescens breviceps* var. *fusciventris* W. M. Wheeler. Syn. of *rufescens breviceps* Emery.

*rufescens breviceps* var. *silvestrii* Santschi. Syn. of *rufescens breviceps* Emery.

*rufescens breviceps* var. *umbratus* W. M. Wheeler. A subsp. of *rufescens* (Latreille).

*rufescens umbratus* W. M. Wheeler, changed status. Utah, Nev.

*Polyergus rufescens breviceps* var. *umbratus* W. M. Wheeler. A subsp. of *rufescens*, not a var. of *breviceps* (*teste* Creighton, 1950. Harvard Univ., Mus. Compar. Zool. Bul. 104: 560).

#### Unrecognized Forms of Subfamily Formicinae, p. 875

*Camponotus herculeanus herculeanus herculeano-pennsylvanicus* Forel. Transf. from Unrecognized Forms of Subgenus *Camponotus*, p. 842.

*Camponotus herculeanus ligniperdus* var. *rubens* W. M. Wheeler. Transf. from Unrecognized Forms of Subgenus *Camponotus*, p. 842.

*Formica atra* Buckley. Transf. from Unrecognized Forms of Subgenus *Myrmentoma*, p. 846.

*Formica connecticutensis* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica laeta* Say. Transf. from Unrecognized Forms of *Camponotus*, p. 847.

*Formica monticola* Buckley. Transf. from Unrecognized Forms of *Lasius*, p. 854.

*Formica Nortonii* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica Nova Anglae* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

*Formica politurata* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.



*Formica saxicola* Buckley. Transf. from Unrecognized Forms of *Lasius*, p. 854.

*Formica semipunctata* Kirby. Transf. from Unrecognized Forms of Subgenus *Camponotus*, p. 842.

*Formica septentrionale* Buckley. Transf. from Unrecognized Forms of Subgenus *Myrmentoma*, p. 846.

*Formica Virginiana* Buckley. Transf. from Unrecognized Forms of *Formica*, p. 873.

## Superfamily VESPOIDEA

### Family VESPIDAE

#### VESPULA subgenus VESPULA Thomson, pp. 875-877

Change Thompson to Thomson in generic and subgeneric headings.

*pennsylvanica* (Saussure).

Biology: F. K. Smith, 1956. Ent. News 67: 141-146, 1 fig.

*rufa consobrina* (Saussure). N. Mex., Ariz.

*squamosa* (Drury). Change Southwest. to Southeast. in range.

*sulphurea* (Saussure). Baja Calif.

#### Genus POLISTES Latreille, pp. 878-879

\**carnifex carnifex* (Fabricius). Ariz. (Nogales); Mexico to Argentina.

*Vespa carnifex* Fabricius, 1775. Syst. Ent., p. 365. ♀.

*Polistes onerata* Lepeletier, 1836. Hist. Nat. Ins. Hym. 1: 524. ♂.

*Polistes valida* Say, 1837. Boston Jour. Nat. Hist. 1: 389. ♀ ♂.

*Polistes transverso-strigata* Spinola, 1851. Accad. Sci. Torino Mem. (2) 13: 78. ♀.

*Polistes transversosignatus* (!) Saussure, 1853. Études sur la famille des Vespides, v. 2, p. 90.

\**exclamans arizonensis* Snelling. Ariz., Calif.; Mexico (Sonora).

*Polistes exclamans arizonensis* Snelling, 1954. Kans. Ent. Soc. Jour. 27: 152. ♀ ♂.

*exclamans exclamans* Viereck.

*Polistes exclamans louisianus* Bequaert (syn. by Snelling, 1955. Amer. Mus. Novitates 1701: 5).

*exclamans louisianus* Bequaert. Syn. of *exclamans exclamans* Viereck.

*fuscatus aurifer* Saussure.

Biology: Snelling, 1954. Kans. Ent. Soc. Jour. 27: 154.

\**fuscatus connectens* Bequaert. Syn. of *fuscatus variatus* Cresson.

*fuscatus variatus* Cresson.

\**Polistes fuscatus connectens* Bequaert, 1940. N. Y. Ent. Soc. Jour. 48: 21. ♀ ♂. N. syn. (*Teste* R. M. Bohart who has seen type.)

*major major* Palisot de Beauvois. Fla. (Miami).

\**pacificus pacificus* Fabricius. South. Tex. to South America.

*Polistes pacifica* Fabricius, 1805. Systema Piezatorum, p. 274. ♀.

Taxonomy: Bequaert, 1937. Inst. Biol. Veget. Arch. 3: 196.

#### MISCHOCYTTARUS subgenus KAPPA Saussure, p. 880

*flavitarsis flavitarsis* (Saussure).

Biology: Snelling, 1953. Kans. Ent. Soc. Jour. 26: 143-145.

#### ZETHUS subgenus ZETHUSCULUS Saussure, p. 881

*slossonae* Fox. In orig. cit., change Ent. News 2 to Ent. News 3.

*spinipes spinipes* Say. Mass. (Cape Cod).

**Genus PSEUDOMASARIS Ashmead, pp. 882-883**

Biology (flower preferences): Cooper and Bequaert, 1950. *Psyche* 57: 137-142.—Cooper and Bequaert, 1952. *Amer. Midland Nat.* 48: 103-110.

**PSEUDOMASARIS subgenus PSEUDOMASARIS Ashmead, p. 882**

- coquilletti* Rohwer. Utah.  
*edwardsii* (Cresson). Colo., Ariz.  
*marginalis* (Cresson). Utah.  
*zonalis albopictus* Bohart. In orig. cit. add *albopictus* after *zonalis*.

**PSEUDOMASARIS subgenus HOLOPTICUS Bradley, p. 883**

- maculifrons* (Fox). N. Mex., Nev.

**Genus EUMENES Latreille, pp. 884-885**

- aureus* Isely. Okla.  
*bollii bollii* Cresson. Md. (Cumberland).  
*crucifera nearcticus* Bequaert. Add n. status after Bequaert in subsp. heading.  
*smithii belfragei* Cresson. Mo., Nebr.; Mexico (Michoacan, Guadalajara).  
*smithii smithii* Saussure. N. C., Ga.  
*verticalis coloradensis* Cresson. Add n. status after Cresson in subsp. heading.

**Genus PSEUDODYNERUS Saussure, p. 886**

- quadrisectus* (Say). Colo.

**Genus ODYNERUS Latreille, p. 887**

- dilectus* Saussure. Alaska (Ft. Yukon).

**Genus PSEUDEPIPONA Saussure, p. 887**

- herrichii aldrichi* (Fox). B. C., Utah, Colo., N. Mex. Add n. comb. after (Fox) in subsp. heading.

**Genus RYGCHIUM Spinola, pp. 887-892**

- annectens* (Saussure). Add n. comb. after (Saussure) in sp. heading.  
*annulatum arvense* (Saussure). Prey: *Elasmopalpus furpurellus* Hlst. larvae. Add n. comb., n. status, after (Saussure) in subsp. heading.  
 Biology: Evans, 1956. *Ent. Soc. Wash. Proc.* 58: 267-268, figs. 1, 2.  
*bidens* (Saussure). Add n. comb. after (Saussure) in sp. heading.  
*boscii albivestis* (Bohart). Add n. comb. (Bohart) in subsp. heading.  
*boscii auranum* (Cameron). Baja Calif.  
*boscii boscii* (Lepeletier). East. U. S. west to Utah and Ariz.; Mexico. Add n. comb. after (Lepeletier) in subsp. heading.  
*delicatum* (Cresson). Add n. comb. after (Cresson) in sp. heading.  
*\*designatum* (Cresson). Syn. of *dorsale dorsale* (Fabricius).  
*digiticornis* Bohart. Utah.  
*dorsale dorsale* (Fabricius).  
*\*Odynerus designatus* Cresson, 1872. *Amer. Ent. Soc. Trans.* 4: 235. ♀. (Omitted from Catalog.)  
*dorsale stricklandi* (Bequaert). Add n. comb. after (Bequaert) in subsp. heading.  
*exoglyphum albovittatum* (Bohart). Add n. comb. after (Bohart) in subsp. heading.

- exoglyphum exoglyphum** (Bohart). Add n. comb. after (Bohart) in subsp. heading.
- foraminatum foraminatum** (Saussure). Nests in wood borings.  
Biology: Cooper, 1954. Ent. Soc. Wash. Proc. 56: 281-282.
- hidalgo boreo-orientalis** (Bequaert). Add n. comb. after (Bequaert) in subsp. heading.
- hidalgo viereckii** (Cameron). Add n. comb. after (Cameron) in subsp. heading.
- leucomelas** (Saussure). Ariz.
- \*manifestum** (Cresson). Syn. of **molestum** (Saussure).
- megaera** (Lepeletier). Nests in wood borings. Prey: Larvae of *Nephopteryx nyssaecolella* (Dyar).  
Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 146-147.
- molestum** (Saussure). Kans.  
**\*Odynerus manifestus** Cresson, 1872. Amer. Ent. Soc. Trans. 4: 240.  
♂ ♀ Preocc.
- \*Odynerus primus** Dalla Torre, 1889. Wien. Ent. Ztg. 8: 125. N. name.
- morelios** (Saussure). Add n. comb. after (Saussure) in sp. heading.
- \*primum** (Dalla Torre). Syn. of **molestum** (Saussure).
- provisoreum** (Viereck). Add n. comb. after (Viereck) in sp. heading.
- tempiferum tempiferum** (Viereck). Utah, Wyo., S. Dak.
- turpe** (Saussure). Add n. comb. after (Saussure) in sp. heading.

#### Genus **PACHODYNERUS** Saussure, p. 892

- acuticarinatus** (Cameron). Add n. comb. after (Cameron) in sp. heading.
- erynnis** (Lepeletier). Mass. (Cape Cod).
- nasidens** (Latreille). Fla. (Plantation Key).
- pulverulentus** (Viereck). Add n. comb. after (Viereck) in sp. heading.

#### Genus **ANCISTROCERUS** Wesmael, pp. 892-896

- antilope antilope** (Panzer). Prey: larvae of Pyralididae, Gelechiidae, Epipaschiidae, Phalaenidae, Phycitidae, Tortricidae. Nests in wood borings. Constructs a silken cocoon. In Buckle ref. change v. 51 to v. 61; note *Epargyreus tityrus* F. as questionable prey.  
Biology: Cooper, 1953. Amer. Ent. Soc. Trans. 79: 13-35.—Cooper, 1955. Amer. Ent. Soc. Trans. 80: 119-174, 1 pl., 6 text figs.—Medler and Fye, 1956. Ent. Soc. Amer. Ann. 49: 97-102, 2 figs.
- catskill catskill** (Saussure). Delete "except Calif." from range.
- parietum** (Linnaeus). Nesting in crack in mortar. Prey: Larvae of Tortricidae.  
Biology: Miller, 1954. Canad. Ent. 86: 197-198, 4 figs.
- tigris albolacteus** Bequaert. Alaska, Utah.
- tigris tigris** (Saussure). Nests in wood borings. Prey: Larvae of Olethreutidae and Gelechiidae.  
Biology: Krombein, 1954. Brooklyn Ent. Soc. Bul. 49: 2-3.

#### Genus **SYMMORPHUS** Wesmael, p. 896

- albomarginatus** (Saussure). Conn., Mich., Alaska.
- canadensis** (Saussure). Tex. Prey: leaf-mining coleopterous larvae, *Chalepus dorsalis* Thunb. and *Prionomerus calceatus* (Say).  
Biology: Krombein, 1952. Amer. Ent. Soc. Trans. 78: 91.—Krombein, 1954. Brooklyn Ent. Soc. Bul. 49: 3.—Krombein, 1956. Ent. Soc. Wash. Proc. 58: 155.



**cristatus cristatus** (Saussure). Add n. comb., n. status, after (Saussure) in subsp. heading.

**cristatus nevadensis** (Cameron). Add n. comb., n. status, after (Cameron) in subsp. heading.

**meridionalis** Viereck. Nebr.

**Genus LEPTOCHILUS Saussure, pp. 896-898**

Taxonomy: Bohart, 1955. Ent. Soc. Wash. Proc. 57: 287-299, 19 figs. (spp. of *trinodus* group).

\***acolhuus** (Saussure), n. comb. South. Tex.; Mexico.

*Odynerus acolhuus* Saussure, 1857. Rev. Mag. Zool. (2) 9: 280. ♀.

\***arenicolus** Bohart. Calif. (Antioch).

*Leptochilus arenicolus* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 299, fig. 19. ♂ ♀.

\***bechteli** Bohart. Calif., Ariz.; deserts.

*Leptochilus bechteli* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 294, figs. 1, 12. ♂ ♀.

**bellulus** (Cresson). S. C., Ga. Nests in rose stem. Add n. comb. after (Cresson) in sp. heading.

\***cavatus** Bohart. South. Calif.

*Leptochilus cavatus* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 295, fig. 13. ♂ ♀.

**congressus** (Viereck). Tex.

**erubescens** (Bohart). Utah, Idaho. Add n. comb. after (Bohart) in sp. heading.

\***gibboceps** Bohart. Calif.

*Leptochilus gibboceps* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 296, fig. 17. ♂ ♀.

**infuscipennis** (Bohart). Idaho. Add n. comb. after (Bohart) in sp. heading.

**lissosomus** (Bohart). Add n. comb. after (Bohart) in sp. heading.

**martini** (Bohart). Ariz., Utah. Add n. comb. after (Bohart) in sp. heading.

\***michelbacheri** Bohart. Calif.; Baja Calif.

*Leptochilus michelbacheri* Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 326. ♂ ♀.

**minutissimus** (Bohart). Tex. Add n. comb. after (Bohart) in sp. heading.

**monolobus** Bohart. Fla.

Taxonomy: Bohart, 1955. Ent. Soc. Wash. Proc. 57: 294, fig. 15.

\***occidentalis** Bohart. Oreg., Calif., Nev., Utah, Ariz., N. Mex., Colo., Wyo.

*Leptochilus occidentalis* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 291, figs. 3, 8, 10. ♂ ♀.

**ornatus ornatus** Saussure. Add n. status after Saussure in subsp. heading; after cit. of *ornatus* change p. 233 to p. 236 and ♀ to ♀ ♂.

**ornatus zendaloides** (Robertson). Tex., Kans., Nebr., Colo. Add n. comb., n. status after (Robertson) in subsp. heading.

**rubicundulus** (Bohart). Add n. comb. after (Bohart) in sp. heading.

**rufinodus** (Cresson). Add n. comb. after (Cresson) in sp. heading.

**rufobasilaris** (Ashmead). Add n. comb. after (Ashmead) in sp. heading.

**russatus** (Bohart). Utah, Tex.; Mexico (Coahuila). Add n. comb. after (Bohart) in sp. heading.

**russipes** (Bohart). Add n. comb. after (Bohart) in sp. heading.

\**schlingeri* Bohart. Calif.

*Leptochilus schlingeri* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 298, figs. 4, 5, 18. ♂ ♀.

\**singulus* Bohart. S. Dak. south to Tex., west to Idaho, Ariz., Calif.

*Leptochilus singulus* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 293, fig. 11. ♂ ♀.

*tetralobus* (Bohart). Add n. comb. after (Bohart) in sp. heading.

*tosquineti* (Cameron). Add n. comb. after (Cameron) in sp. heading.

*trachysomus* (Bohart). Utah. Add n. comb. after (Bohart) in sp. heading.

\**trinodus* Bohart. Calif., Ariz., N. Mex., Tex.

*Leptochilus trinodus* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 289, figs. 2, 6, 7, 9. ♂ ♀.

\**umbifer* Bohart. Calif.

*Leptochilus umbifer* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 297, fig. 16. ♂ ♀.

\**williamsi* Bohart. Calif., Oreg., Idaho.

*Leptochilus williamsi* Bohart, 1955. Ent. Soc. Wash. Proc. 57: 297, fig. 14. ♂ ♀.

**STENODYNERUS subgenus STENODYNERUS Saussure, pp. 898-901**

*ammonia ammonia* (Saussure). S. C., N. C.

*ammonia histrionalis* (Robertson). Nests in wood borings. Prey: larvae of Tortricidae. Add n. comb., n. status, after (Robertson) in subsp. heading.

Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 147-148.

*ammonia paenevagus* (Viereck). Add n. comb., n. status, after (Viereck) in subsp. heading.

*anormiformis* (Viereck). Add n. comb. after (Viereck) in sp. heading.

*apache* Bohart. Calif.

*blandus blandus* (Saussure). Utah, Ariz.

\**blepharus* Bohart. Md. south to Fla., west to W. Va., Tex., Kans.

*Stenodynerus (Stenodynerus) blepharus* Bohart, 1953. Biol. Soc. Wash. Proc. 66: 185. ♂ ♀.

*clypeolatus floridanus* (Robertson). S. C.

*cochisensis* (Viereck). B. C., Idaho, Nebr., N. Mex.

*fundatiformis fundatiformis* (Robertson). Nests in ground. Prey: larvae of Chlamisinae (Chrysomelidae) and Pyralididae.

Biology: Evans, 1956. Ent. Soc. Wash. Proc. 58: 268, figs. 3, 4.

*fundatus* (Cresson). Ala., Miss., La., Tex., Ark., Kans., Mo., Okla., N. Mex.

*Odynerus fundatus* Cresson, 1872. Amer. Ent. Soc. Trans. 4: 242. ♀ ♂.

Taxonomy: Bohart, 1944. Pan-Pacific Ent. 20: 75.

*kennicottianus antheus* (Cameron). Add n. comb., n. status, after (Cameron) in subsp. heading.

*kennicottianus kennicottianus* (Saussure). Add n. comb., n. status, after (Saussure) in subsp. heading.

\**krombeini* Bohart. N. C. (Kill Devil Hills). Nests in wood borings. Prey: lepidopterous larvae.

*Stenodynerus (Stenodynerus) krombeini* Bohart, 1953. Biol. Soc. Wash. Proc. 66: 187. ♂ ♀.

Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 148.

*lineatifrons* Bohart. Prey: larva of *Rhyacionia* sp.

Biology: Krombein, 1953. Ent. Soc. Wash. Proc. 55: 115.

*lucidus* (Rohwer). Add n. comb. after (Rohwer) in sp. heading.

**microstictus** (Viereck). Nests in ground and constructs an entrance turret to burrow. Prey: Larvae of Phaloniidae, Gelechiidae and Cosmopterygidae.

Biology: Evans, 1956. Ent. Soc. Wash. Proc. 58: 269, figs. 7, 8.

**oculeus illinoensis** (Robertson). Add n. comb., n. status, after (Robertson) in subsp. heading.

**oculeus oculeus** (Robertson). Add n. status after (Robertson) in subsp. heading.

\***odontoschius** (Rohwer). Sny. of **percampaulatus** (Viereck).

\***odontoschius** var. **dichrous** (Rohwer). Syn of **percampaulatus** (Viereck).

**papagorum papagorum** (Viereck). Sask., Idaho, Wyo., Utah.

**percampaulatus** (Viereck). Kans., Wyo., Utah. Change 1916 to 1915 in orig. cit. of **blavus** Rohwer.

\***Odynerus** (**Stenodynerus**) **odontoschius** Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 241. ♀.

\***Odynerus** (**Stenodynerus**) **odontoschius** var. **dichrous** Rohwer, 1915. U. S. Natl. Mus. Proc. 49: 241. ♀.

\***pulvinatus** Bohart. Mass. south to Fla., Mo., Kans., Mich.

**Stenorynerus** (!) (**Stenodynerus**) **pulvinatus** Bohart, 1953. Biol. Soc. Wash. Proc. 66: 186. ♂ ♀.

**pulvivistis** Bohart. Calif. deserts.

**taos** (Cresson). Tex., Kans., Nebr.

#### **STENODYNERUS subgenus PARANCISTROCERUS Bequaert, pp. 901-903**

Taxonomy: Bohart, 1952. Ent. Soc. Wash. Proc. 54: 38-53 (Calif. spp., key to U. S. spp.).

**acanthopus** (Cameron), n. comb. Tex. (Fedor).

**Odynerus** (**Ancistrocerus**) **acanthopus** Cameron. Type exam. and transf. to **Parancistrocerus** by Soika, 1941. Bol. Soc. Veneziana Stor. Nat. (n.s.) 2: 272. Transf. from *Nomina Dubia*, p. 907.

\***acarigaster** Bohart. Wash., Oreg., Idaho, Utah, Calif., Nev., Ariz.

**Stenodynerus** (**Parancistrocerus**) **acarigaster** Bohart, 1952. Ent. Soc. Wash. Proc. 54: 49, fig. 8. ♂ ♀.

\***acarophorus** Bohart. Wash., Oreg., Calif.

**Stenodynerus** (**Parancistrocerus**) **acarophorus** Bohart, 1952. Ent. Soc. Wash. Proc. 54: 45, fig. 2. ♂ ♀.

**bicornis bicornis** (Robertson). Add n. status, after (Robertson) in subsp. heading.

**bicornis ceanothi** (Rohwer). Tenn. Add n. comb., n. status, after (Rohwer) in subsp. heading.

**chiricahuae** Bohart. N. Mex.

**colon** (Cresson). N. syn. of **vagus vagus** (Saussure) (*teste* K. W. Cooper who has examined the type). N. b., **leionotum** Viereck is a valid sp., not a syn. of **colon**.

\***cotti** Bohart. Calif., Oreg.

**Stenodynerus** (**Parancistrocerus**) **cotti** Bohart, 1952. Ent. Soc. Wash. Proc. 54: 52, fig. 11. ♂ ♀.

\***declivatus** Bohart. South. Calif.; Baja Calif.

**Stenodynerus** **declivatus** Bohart, 1948. Calif. Acad. Sci. Proc. (4) 24: 331, pl. 12, figs. 7, 8. ♂ ♀.

Taxonomy: Bohart, 1952. Ent. Soc. Wash. Proc. 54: 46, fig. 3.

**fulvipes rufovestis** Bohart. Nests in wood borings. Prey: larvae of Olethreutidae or Phaloniidae.

Biology: Evans, 1956. Ent. Soc. Wash. Proc. 58: 270.



- histrion** (Lepeletier). Nests in wood borings. Prey: Lepidopterous larvae.  
Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 148-149.
- lacunus** (Fox). Reared from abandoned clay cells of *Sceliphron*.  
Taxonomy: Bohart, 1952. Ent. Soc. Wash. Proc. 54: 49, fig. 7.
- leionotus leionotus** (Viereck). A valid subsp., not a syn., of **colon colon** (Cresson) (*teste* K. W. Cooper who has examined type of **colon**).
- leionotus yumus** (Viereck). Replaces **colon yumus** (Viereck).
- \***meclayi** Bohart. Calif., Idaho, N. Mex.  
*Stenodynerus (Parancistrocerus) meclayi* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 51, fig. 10. ♂ ♀.
- minimoferus** Bohart. Nests in old *Sceliphron* cells.  
Taxonomy: Bohart, 1952. Ent. Soc. Wash. Proc. 54: 47, fig. 5.
- minnesotaensis** (Cameron), n. comb. Minn.  
*Odynerus (Ancistrocerus) minnesotaensis* Cameron. Type exam. and transf. to *Parancistrocerus* by Soika, 1941. Bol. Soc. Veneziana Stor. Nat. (n. s.) 2: 273. Trans. from Nomina Dubia, p. 907.
- \***parapedestris arenosus** Bohart. Calif., Nev., Ariz.  
*Stenodynerus (Parancistrocerus) parapedestris arenosus* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 48. ♂ ♀.
- \***parapedestris parapedestris** Bohart. South. Calif.  
*Stenodynerus (Parancistrocerus) parapedestris* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 47, fig. 6. ♂ ♀.
- pedestris bifureus** (Robertson). Add n. status, after (Robertson) in subsp. heading.
- \***pensylvanicus ignotatus** Bohart. Calif., Oreg., Wash., Idaho, Minn., Mich. N. B.  
*Stenodynerus (Parancistrocerus) pensylvanicus ignotatus* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 46, fig. 4. ♂ ♀.
- pensylvanicus pensylvanicus** (Saussure), changed status. N. Mex.  
*Stenodynerus (Parancistrocerus) pensylvanicus* (Saussure). Reduced to subsp. rank (*teste* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 41).
- perennis anacardivora** (Rohwer). S. C., Va., N. Y. Nesting in twig. Prey: Larvae of Olethreutidae and Gelechiidae.  
Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 228-229.
- \***rectangulis frazieri** Bohart. Calif., Oreg.  
*Stenodynerus (Parancistrocerus) rectangulis frazieri* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 45, fig. 1. ♂ ♀.
- rectangulis rectangulis** (Viereck), changed status.  
*Stenodynerus (Parancistrocerus) rectangulis* (Viereck). Reduced to subsp. rank (*teste* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 40).
- \***siccus** Bohart. Colo., Utah, Wash. Calif., Ariz.; Baja Calif.  
*Stenodynerus (Parancistrocerus) siccus* Bohart, 1952. Ent. Soc. Wash. Proc. 54: 50, fig. 9. ♂ ♀.
- \***subtoltecus** (Viereck), n. comb. Kans. (Hamilton Co.).  
*Odynerus subtoltecus* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 197. ♀ (♂ misdet.). (Type possibly lost, *teste* R. M. Bohart, *in litt.*)
- toltecus** (Saussure)  
Taxonomy: Bohart, 1952. Ent. Soc. Wash. Proc. 54: 53, fig. 12.
- vagus vagus** (Saussure). Idaho. Builds multicellular clay nest attached to tree branch.  
*Odynerus colon* Cresson, 1872. N. syn. (Based on type exam. by K. W. Cooper).
- Biology: Evans, 1956. Ent. Soc. Wash. Proc. 58: 269-270.

**Genus DOLICHODYNERUS Bohart, p. 903**

**tanynotus** (Cameron). Calif. (deserts); Mexico (Nuevo Leon).

**Genus MARICOPODYNERUS Viereck, pp. 903-904***maricoporum* (Viereck). Tex.; Baja Calif.*rudiceps* Bohart. Ariz.*sericifrons* Bohart. Ariz.**PTEROCHEILUS subgenus MEGAPTEROCHEILUS Bohart, pp. 904-905**\**bradleyi* Bohart. Ariz. (Nogales).*Pterocheilus (Megapterocheilus) bradleyi* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 195. ♂, ♀ (?).*crispocornis* Bohart. Nev., Ariz.*decorus decorus* Cresson. Nebr., Mont.*linsleyi* Bohart. Mexico (Nuevo Leon).*mirandus* Cresson. Utah.*texanus* Cresson. Prey: *Heliophana mitis* Grote larvae.

Biology: Evans, 1956. Ent. Soc. Wash. Proc. 58: 265-267, figs. 5, 6.

**PTEROCHEILUS subgenus ONCHOPTEROCHEILUS Bohart, pp. 905-906***hirsutipennis* Bohart. Ariz.\**hurdi* Bohart. Calif.*Pterocheilus (Onchopterocheilus) hurdi* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 197. ♂ ♀.*panamintensis* Bohart. Ariz.\**sculleni* Bohart. Ariz., Colo., Tex.*Pterocheilus (Onchopterocheilus) sculleni* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 196. ♂ ♀.**PTEROCHEILUS subgenus MICROPTEROCHEILUS Bohart, p. 906***desertorum* Bohart. Nev., N. Mex.*flavobalteatus* Cameron. Wyo.\**paenacuceps* Bohart. Wyo.*Pterocheilus (Micropterocheilus) paenacuceps* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 200. ♀.\**provancheri albotinctus* Bohart. Calif., Oreg., Wash., Wyo., Nev.*Pterocheilus (Micropterocheilus) provancheri albotinctus* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 199. ♂ ♀.*provancheri provancheri* (Huard), changed status.*Pterocheilus (Micropterocheilus) provancheri* (Huard). Reduced to subsp. rank (*teste* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 199).*seneconis* Rohwer. Nev.\**sparsipunctatus* Bohart. Calif.*Pterocheilus (Micropterocheilus) sparsipunctatus* Bohart, 1950. Biol. Soc. Wash. Proc. 63: 198. ♂ ♀.**Nomina Dubia, p. 907***Odynerus acanthopus* Cameron. Transf. to *Stenodynerus* (*Parancistrocerus*), pp. 901-903.\**Odynerus bimaculatus* Provancher, 1895. Nat. Canad. 22: 157. ♀ ♂.*Odynerus minnesotaensis* Cameron. Transf. to *Stenodynerus* (*Parancistrocerus*), pp. 901-903.\**Odynerus robustus* Provancher, 1895. Nat. Canad. 22: 157. ♀.\**Odynerus tricolor* Provancher, 1895. Nat. Canad. 22: 158. ♂.

## Family POMPILIDAE

Ethology: Evans, 1953. Syst. Zool. 2: 155-172.

## Subfamily PEPSINAE

Revision: Townes, 1957. U. S. Natl. Mus. Bul. 209: 1-220, 129 figs.

## Genus CHIRODAMUS Haliday, p. 908

\**Chrysocurgus* Haupt, 1937. Ztschr. f. Naturw. 91: 127, 134.

Type: *Sphex nitida* Fabricius. Orig. desig.

\**Anacyphonyx* Banks, 1946. Harvard Univ., Mus. Compar. Zool. Bul. 96: 520.

Type: *Anacyphonyx fidelis* Banks. Orig. desig.

*maculipennis* (Smith). N. C., Kans., Tex.

*pyrrhomelas* (Walker). Prey: Female *Antrodiaetus pacificus* Simon.

*validus* (Cresson). N. C.

## Genus HEMIPEPSIS Dahlbom, p. 909

*ustulata ochroptera* Stål. Prey: *Brachythele longitarsis* Simon.

Biology: Williams, 1956. Ent. Soc. Amer. Ann. 49: 460-462, figs. 20, 22.

## Genus PEPSIS Fabricius, pp. 909-910

Revision: Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 257-334, 49 figs., 2 tables.

Biology: Williams, 1956. Ent. Soc. Amer. Ann. 49: 447-466, 24 figs.

*angustimarginata* Viereck. Northwest. Mexico.

\**aquila* Lucas. South. Ariz. and N. Mex.; north-centr. Mexico.

*Pepsis aquila* Lucas, 1895. Berlin. Ent. Ztschr. 39: 797. ♂.

*arizonica* Banks. North-centr. Mexico.

*Pepsis hirsuta* Salman (syn. by Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 300).

*azteca* Cameron. Panama to Tex.

*cerberus* Lucas. A subsp. of *elegans* Lepeletier.

*chrysothemis chrysothemis* Lucas, changed status. North. Mexico.

*Pepsis chrysothemis* Lucas. Reduced to subsp. rank (*teste* Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 312).

*chrysothemis lucasii* Fox, changed status. Northeast. Mexico.

*Pepsis lucasii* Fox. Reduced to subsp. rank (*teste* Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 313).

*elegans cerberus* Lucas, changed status. North. Mexico.

*Pepsis cerberus* Lucas. Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 30).

*elegans elegans* Lepeletier, changed status.

*Pepsis elegans* Lepeletier. Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 30).

*formosa formosa* (Say), changed status. Northwest. Mexico.

*Pepsis formosa* (Say). Reduced to subsp. rank (*teste* Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 285).

*formosa pattoni* Banks, changed status. Baja Calif., west. Mexico.

*Pepsis pattoni* Banks. Reduced to subsp. rank (*teste* Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 287).

*hirsuta* Salman. Syn. of *arizonica* Banks.

*lucasii* Fox. A subsp. of *chrysothemis* Lucas.



\**marginata* Palisot de Beauvois. South. Fla.; West Indies.

*Pepsis marginata* Palisot de Beauvois, 1809. Ins. Afr., Amer., p. 94, pl. 2, figs. 2, 3. ♂ ♀.

*Pepsis heros* Dahlbom, 1844. Hym. Europaea, v. 1, p. 122. ♀.

*mexicana* Lucas. Mexico south to Colombia.

*mildei* Stål. North. Mexico.

*pallidolimbata pallidolimbata* Lucas. North. Mexico incl. Baja Calif.

*pattoni* Banks. A subsp. of *formosa* (Say).

\**saphirus* Palisot de Beauvois. South. Fla.; West Indies.

*Pepsis saphirus* Palisot de Beauvois, 1806. Ins. Afr., Amer., p. 39, pl. 1, fig. 4. ♀.

*sherillae* Hurd. Syn. of *thisbe* Lucas.

*thisbe* Lucas. North. Mexico incl. Baja Calif.

*Pepsis sherillae* Hurd. (syn. by Hurd, 1952. Amer. Mus. Nat. Hist. Bul. 98: 303).

\**venusta* Smith. South. Ariz. to Brasil.

*Pepsis venusta* Smith, 1855. Cat. Hym. Brit., Mus., v. 3, p. 196. ♂.

#### Genus *PRIOCNESSUS* Banks, p. 911

*dakota* (Cresson).

\**Pompilus (Agenia) Dakota pallidicornis* Cresson, 1867. Amer. Ent. Soc. Trans. 1: 124. ♂. Preocc.

\**dakota pallidicornis* (Cresson). Syn. of *dakota* (Cresson).

*leiby* (Brimley). Syn. of *nebulosus* (Dahlbom).

*nebulosus* (Dahlbom).

*Priocnessus leiby* (Brimley) (syn. by Townes, 1957. U. S. Natl. Mus. Bul. 209: 41).

\**nigricans* Townes. Ariz.

*Priocnessus nigricans* Townes, 1957. U. S. Natl. Mus. Bul. 209: 47. ♀.

#### Genus *PRIOCNEMIOIDES* Radoszkowski, p. 911

\**Cheilotus* Bradley, 1946. Soc. Cubana Hist. Nat. Mem. 18: 124.

Type: *Pompilus ignipennis* Cresson. Orig. desig.

\**angusticeps* Townes. Tex.; Mexico.

*Priocnemioides angusticeps* Townes, 1957. U. S. Natl. Mus. Bul. 209: 60, pl. 2, fig. 17. ♂ ♀.

\**aratus* Townes. U. and L. Sonoran Faunas, Idaho.

*Priocnemioides aratus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 51. ♀ ♂.

\**austrinus austrinus* (Banks). Tex., Kans., Colo.

*Cryptocheilus austrinus* Banks, 1917. Harvard Univ., Mus. Compar. Zool. Bul. 61: 102. ♀.

\**austrinus fuscatus* Townes. Ala., Kans.

*Priocnemioides austrinus fuscatus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 53. ♀.

*fulvicornis* (Cresson). Prey: *Lycosa avida* Walck.

*magnus* (Cresson). Gulf and Atlantic States, Tex. to N. Y.

*texanus* new subspecies. Delete entire entry. Replaced by *texanus atripennis*.

\**texanus atripennis* Townes. La. (Opelousas).

*Priocnemioides texanus atripennis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 56. ♂.

*unifasciatus* new subspecies. Delete entire entry. Replaced by *unifasciatus californicus*.

\**unifasciatus californicus* Townes. Calif.; Baja Calif.

*Priocnemoides unifasciatus californicus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 65, pl. 2, fig. 19. ♀ ♂.

*unifasciatus cressoni* (Banks). Prey: *Lycosa antelucana* Mont.

*unifasciatus unifasciatus* (Say). Prey: *Lycosa* sp.

**Genus CRYPTOCEILUS Panzer, pp. 911-912**

*attenuatum* Banks. Colo.; Mexico (Morelos and Jalisco). Prey: *Lycosa* sp., juv.

*severini* Banks. Mexico (Durango, Chihuahua, Nuevo Leon).

*terminatum terminatum* (Say). Mexico (Zacatecas and Teotihuacan).

**DIPOGON subgenus DEUTERAGENIA Suster, pp. 912-913**

Change *Sustra* to *Suster* in subgeneric heading.

\**anomalus* Dreisbach. A subsp. of *papago* (Banks).

*calipterus calipterus* (Say). Md., D. C., Va., N. C., Ill.

\**Dipogon femur-aureus* Dreisbach, 1953. Amer. Midland Nat. 49: 832. ♀. (Syn. by Townes, 1957. U. S. Natl. Mus. Bul. 209: 124.)

\**calipterus duplicatus* Townes. Fla., Ga.

*Dipogon (Deuteragenia) calipterus duplicatus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 125. ♀.

\**femur-aureus* Dreisbach. Syn. of *calipterus calipterus* (Say).

\**iracundus* Townes. Ariz. (Graham and Huachuca Mts.)

*Dipogon (Deuteragenia) iracundus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 127. ♀.

\**papago anomalus* Dreisbach, changed status. Canad., Transit. and U. Austr. Zone from Atlantic to 100° W. Prey: *Paraphidippus aurantius* (Luc.).

*Dipogon anomalus* Dreisbach, 1953. Amer. Midland Nat. 49: 834, figs. 4, 8. ♂. Reduced to a subsp. of *papago* (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 121).

\**papago floridanus* Townes. Fla.

*Dipogon (Deuteragenia) papago floridanus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 122. ♀ ♂.

*papago papago* (Banks), changed status. B. C.

*Dipogon (Deuteragenia) papago* (Banks). Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 120).

*sayi* new subspecies. Delete entire entry. Replaced by *sayi nigrior*.

\**sayi nigrior* Townes. Transit. Fauna, B. C., Oreg., Calif., Mont., Colo., N. Mex.

*Dipogon (Deuteragenia) sayi nigrior* Townes, 1957. U. S. Natl. Mus. Bul. 209: 130. ♀.

\**thoracicus* Townes. N. Mex., Ariz.

*Dipogon (Deuteragenia) thoracicus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 126. ♀.

**DIPOGON subgenus DIPOGON Fox, p. 913**

*brevis brevis* (Cresson), changed status. Carol. Fauna, Mass. to N. C.

*Dipogon (Dipogon) brevis* (Cresson). Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 136).

\**brevis ochreus* Townes. Md., S. C. Prey: *Phidippus* (?) sp., juv.

*Dipogon (Dipogon) brevis ochreus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 137. ♀.

\**brevis recalvus* Townes. Alleghan. Fauna, Que. and Ont. to Va. and Wis.

*Dipogon (Dipogon) brevis recalvus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 134. ♀ ♂.

\**graenicheri atratus* Townes. N. J., N. C.

*Dipogon (Dipogon) graenicheri atratus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 139, pl. 2, fig. 29. ♀.

*graenicheri graenicheri* Banks, changed status.

*Dipogon (Dipogon) graenicheri* Banks. Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 140).

\**paludis* Townes. N. J. (Atsion).

*Dipogon (Dipogon) paludis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 133. ♀.

\**pygmaeus* Townes. Ala. (Prattsville).

*Dipogon (Dipogon) pygmaeus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 132. ♀.

#### \*PRIOCNEMIS subgenus SPHICTOSTETHUS Kohl

*Sphictostethus* Kohl, 1884. Zool.—Bot. Gesell. Wien, Verh. 34: 37, 47.

Type: *Pompilus gravesii* Haliday. Orig. desig.

*Haploneura* Kohl, 1884. Zool.—Bot. Gesell. Wien, Verh. 34: 37, 47. Preocc.

Type: *Haploneura apogona* Kohl. Orig. desig.

*Haploneurion* Kohl, 1885. Ent. Nachr. 11: 163. N. name.

Place in *Priocnemis* immediately after generic heading, p. 913. The only North American species is *pretiosa* Banks which was placed in subgenus *Priocnemis* in Catalog.

*pretiosa* Banks. Prey: *Lycosa* sp.

*Priocnemis (Priocnemis) pretiosa* Banks. Belongs to subg. *Sphictostethus* Kohl (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 82).

#### \*PRIOCNEMIS subgenus PRIOCNEMISSUS Haupt

(= subg. *Priocnemis* of Catalog, p. 913)

*Priocnemissus* Haupt, 1949. Beitr. Tax. Zool. 1: 75.

Type: *Priocnemis "coriarius"* Dahlbom = *coriaceus* Dahlbom. Orig. desig.

The subgeneric name *Priocnemis* replaces *Myrmecosalius* Ashmead, p. 914, and all synonymy cited under subg. *Priocnemis* in the Catalog is transferred with the subgeneric heading.

*minorata* Banks. Prey: Spiders belonging to Agelenidae, Anyphaenidae, Clubionidae, Lycosidae.

Biology: Yoshimoto, 1954. Brooklyn Ent. Soc. Bul. 49: 130-138, 2 figs.

*oregona* Banks. Prey: *Brachythele* sp.

*pretiosa* Banks. Transf. to subg. *Sphictostethus* Kohl, *vide supra*.

#### PRIOCNEMIS subgenus PRIOCNEMIS Schiødte (= *Priocnemis* subg. *Myrmecosalius* Ashmead, p. 914)

\**abbreviatus* Townes. Tex. (Ft. Davis).

*Priocnemis (Priocnemis) abbreviatus* Townes, 1957. U. S. Natl. Mus., Bul. 209: 102. ♀.

*cornica* (Say). Mexico (Puebla, Durango). Prey: Small Oxyopidae and Lycosidae. In citation of *atrata* Provancher, change 1888 to 1887. Remove *minuscula* (Banks) from syn.

*germana* (Cresson). Transf. *perfecta* Provancher from syn. to a valid sp. in *Minagenia*, p. 919.

*minuscula* (Banks). N. C., S. C., Tex., Kans., Ill.

*Priocnemis (Myrmecosalius) cornica* (Say) of Catalog, in part. *P. minuscula* (Banks) not a syn. (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 101).

*navajo* Banks. A subsp. of *notha* (Cresson).



\**notha alaskensis* Townes. Alaska, N.W.T. Prey: *Paraphidippus marginatus* (Walck.).

*Priocnemis (Priocnemis) notha alaskensis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 106. ♂ ♀.

*notha navajo* Banks, changed status.

*Priocnemis (Myrmecosalius) navajo* Banks. Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 104).

#### Genus *CALICURGUS* Lepeletier, p. 915

*hyalinatus alienatus* (Smith). Prey: *Araneus* sp.

\**hyalinatus excoctus* Townes. N. Mex., Ariz.; Mexico (Morelos, Durango, Jalisco).

*Calicurgus hyalinatus excoctus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 115. ♀ ♂.

#### Genus *AUPLOPUS* Spinola, pp. 915-917

*architectus architectus* (Say), changed status. Transit. to Austrorip. Zones from Atlantic to Rocky Mts., and west of Rocky Mts. in Colo., N. Mex. and Ariz.; north Mexico. Prey: *Misumenops oblongus* (Keys.), *Phidippus audax* (Hentz), *Phidippus princeps* (Peck.).

*Auplopus architectus* (Say) of Catalog, in part. *A. metallicus* (Banks) is a valid subsp., not a syn. (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 164).

*architectus metallicus* (Banks), changed status. West of Rocky Mts., from B. C. to north Mexico. Prey: *Thiodina* sp.

*Pseudagenia metallica* Banks a subsp. of *architectus* (Say), not a syn. (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 162).

*caerulescens antennalis* (Banks). Syn. of *caerulescens subcorticalis* (Walsh).

*caerulescens caerulescens* (Dahlbom). N. C. and S. C. west to Kans. and Tex. Remove *floridanus* (Banks) from syn.

*caerulescens floridanus* (Banks), changed status. Austrorip. Fauna, Fla. to S. C.

*Auplopus caerulescens caerulescens* (Dahlbom) of Catalog, in part (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 161).

*caerulescens subcorticalis* (Walsh). Prey: *Phidippus audax* (Hentz). Remove *nigrella* (Banks) and *nanella* (Banks) from syn.

*Pseudagenia antennalis* Banks (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 159).

\**inermis* Townes. Tex. (Helotes Cr.).

*Auplopus inermis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 148. ♀.

*mellipes mellipes* (Say), changed status. Prey: *Phidippus* sp., *Pisaurina mira* (Walck.), *Herpyllus vasifer* (Walck.), *Marpissa undata* (DeG.).

*Auplopus mellipes* (Say). Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 152).

Biology: Krombein, 1952. Ent. Soc. Wash. Proc. 54: 176-177.

\**mellipes meridianus* Townes. Fla. (Paradise Key).

*Auplopus mellipes meridianus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 154. ♀.

*mellipes variitarsatus* (Dalla Torre), changed status.

*Auplopus variitarsatus* (Dalla Torre). Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 155).

\**mollis* Townes. South. Tex.

*Auplopus mollis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 157. ♀.

*nigrellus* (Banks), changed status. Most of south. Canada, U. S. and north. Mexico, but not known from northwest except Oreg., or from southeast. Prey: *Anyphaena fraterna* Bks., *Trachelas* sp.

*Auplopus caerulescens subcorticalis* (Walsh) of Catalog, in part. *A. nigrellus* (Banks) and *A. nanellus* Banks are not syns. but a valid sp., the former name having priority (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 165).

*variitarsatus* (Dalla Torre). A subsp. of *mellipes* (Say).

\**variolarum* Townes. Tex. (Chisos Mts.).

*Auplopus variolarum* Townes, 1957. U. S. Natl. Mus. Bul. 209: 149. ♀.

#### AGENIELLA subgenus AMERAGENIA Banks, p. 917

\**fasciata* Townes. Tex. (Brownsville); Mexico (Cordoba).

*Ageniella (Ameragenia) fasciata* Townes, 1957. U. S. Natl. Mus. Bul. 209: 217. ♀.

*rufescens* (Banks). Transf. to subg. *Priophanes* Banks, p. 919.

*salti* (Banks). Prey: *Clubiona* sp.

\**striga* Townes. Tex. (Brownsville).

*Ageniella (Ameragenia) striga* Townes, 1957. U. S. Natl. Mus. Bul. 209: 216. ♀.

#### AGENIELLA subgenus LEUCOPHRUS Townes, p. 917

*incita* (Banks). Kans.

#### AGENIELLA subgenus AGENIELLA Banks, pp. 918-919

*accepta* (Cresson). Mexico (Coahuila).

*conflicta* Banks. Guatemala. Prey: Immature *Lycosa* spp.

*euphorbiae* (Viereck). Remove *submetallica* (Banks) from syn.

\**evansi* Townes. Ariz., N. Mex.; Mexico (Teotihuacan).

*Ageniella (Ageniella) evansi* Townes, 1957. U. S. Natl. Mus. Bul. 209: 205. ♀.

\**grisea* Townes. Idaho (Hollister, Wendell).

*Ageniella (Ageniella) grisea* Townes, 1957. U. S. Natl. Mus. Bul. 209: 195. ♀.

*mintaka* Brimley. Fla., Va., W. Va.

*neglecta* Banks. Mexico (Puebla, Zacatecas, Teotihuacan).

*obscura delicata* Banks. S. C.

*obscura obscura* Banks. Fla.

*partita* Banks. Mexico (Durango, Puebla, Nayarit, Zacatecas, Hidalgo).

Prey: *Gnaphosa sericata* (Koch), *Arctosa littoralis* (Hentz).  
Parasite: *Ceropales hatoda* Brim.

\**Alasagenia rubineus* Dreisbach, 1950. Ent. News. 61: 68. ♀. (Syn. by Townes, 1957. U. S. Natl. Mus. Bul. 209: 193).

\**rubineus* Dreisbach. Syn. of *partita* Banks.

\**seminole* Townes. Fla.

*Ageniella (Ageniella) seminole* Townes, 1957. U. S. Natl. Mus. Bul. 209: 196. ♀ ♂.

*submetallica* (Banks). Tex. (Austin).

*Ageniella (Ageniella) euphorbiae* (Viereck) of Catalog, in part *A. submetallica* not a syn. (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 205).

\**vogeli* Townes. Carol. Fauna, Pa. to Ga., Kans. Prey: Immature *Lycosa avara* (Keys.)

*Ageniella (Ageniella) vogeli* Townes, 1957. U. S. Natl. Mus. Bul. 209: 202. ♀ ♂.

#### AGENIELLA subgenus PRIOPHANES Banks, p. 919

*agenioides* (Fox). Prey: Immature Salticid.

*arcuata* (Banks). Ariz., Tex.; Mexico (Nayarit, Durango, Zacatecas, Teotihuacan, Vera Cruz, Jalisco).

*arizonica arizonica* (Banks), changed status.

*Ageniella (Priophanes) arizonica* (Banks). Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 179).

\**arizonica concolor* Townes. Kans. (Manhattan).

*Ageniella (Priophanes) arizonica concolor* Townes, 1957. U. S. Natl. Mus. Bul. 209: 179. ♀ ♂.

*faceta* new subspecies. Delete entire entry. Replaced by *faceta ventralis*.

\**faceta ventralis* Townes. Fla.; Mexico (Nuevo Leon).

*Ageniella (Priophanes) faceta ventralis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 183. ♀ ♂.

\**fuscipennis* Townes. Calif. Prey: *Oxyopes salticus* Hentz.

*Ageniella (Priophanes) fuscipennis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 189. ♀.

*placita* new subspecies. Delete entire entry. Replaced by *placita sonorensis*.

\**placita sonorensis* Townes. Calif.; northwest. Mexico.

*Ageniella (Priophanes) placita sonorensis* Townes, 1957. U. S. Natl. Mus. Bul. 209: 185. ♀.

*rufescens* (Banks).

*Ageniella (Ameragenia) rufescens* (Banks). Transf. from subg. *Ameragenia* (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 180).

#### \*Genus PRIOCNEMELLA Banks

*Priocnemella* Banks, 1925. Harvard Univ., Mus. Compar. Zool. Bul. 67: 337.

Type: *Priocnemis (Priocnemella) fairchildi* Banks. Desig. by Pate, 1946.

*Eragenia* Banks, 1946. Harvard Univ., Mus. Compar. Zool. Bul. 96: 421.

Type: *Eragenia infelix* Banks. Orig. desig.

Place in Macromerini after *Ageniella* subg. *Priophanes* Banks, p. 919.

\**tabascoensis* (Cameron). South Tex. to Ecuador.

*Pseudagenia tabascoensis* Cameron, 1891. Biol. Cent.—Amer., Hym., v. 3, p. 172. ♂.

*Ageniella rufula* Banks, 1945. Bol. Ent. Venezolana 4: 117. ♀.

### Subfamily CEROPALINAE

Revision: Townes, 1957. U. S. Natl. Mus. Bul. 209: 221-272, 32 figs.

#### \*Tribe MINAGENIINI

This tribal heading should be inserted above the genus *Minagenia* Banks, p. 919.

#### Genus MINAGENIA Banks, p. 919

In citation of *Nannochilus* Banks, change 1934 to 1944.

*clypeata* (Banks). Md. to N. C., Mich.

\**Minagenia shappirioi* Dreisbach, 1953. Amer. Midland Nat. 49: 839, figs. 1, 5. ♂. Syn. by Townes, 1957. U. S. Natl. Mus. Bul. 209: 231).

*congrua* (Cresson). Alleghan. Fauna, Que. to Va., W. Va., Mich.

*Agencia rufigastra* Provancher (syn. by Townes, 1957. U. S. Natl. Mus. Bul. 209: 227).

\**Minagenia semirufa* Dreisbach, 1953. Amer. Midland Nat. 49: 841, figs. 10, 14. ♂. (Syn. by Townes, *loc. cit. supra.*)

?*Minagenia michiganensis* Dreisbach, 1953. Amer. Midland Nat. 49: 842, figs. 9, 12. ♂. (Syn. by Townes, *loc. cit. supra.*)



*julia* (Brimley). Atlantic and Gulf Coast States, Md. to Tex.

\**lata* Townes. S. C. (McClellanville, Columbia).

*Minagenia lata* Townes, 1957. U. S. Natl. Mus. Bul. 209: 230, pl. 3, fig. 36; pl. 4, fig. 44. ♂.

\**lutea* Dreisbach. Okla. (Vinita).

*Minagenia lutea* Dreisbach, 1955. Ent. News. 66, 106. ♀

\**major* Townes. D. C., Ga.

*Minagenia major* Townes, 1957. U. S. Natl. Mus. Bul. 209: 229. ♂ ♀.

\**michiganensis* Dreisbach. Probable syn. of *congrua* (Cresson).

\**montisdorsa* Dreisbach. Ohio, Ga., La., Tex.; Mexico (Baja Calif., Zacatecas).

*Minagenia montisdorsa* Dreisbach, 1953. Amer. Midland Nat. 49: 840, figs. 3, 7. ♂.

*osoria* (Banks). W. Va., Ga., Tex. Prey: Immature Lycosid. In orig. cit. change ♂ to ♂ ♀.

*perfecta* (Provancher). Que. (Cap Rouge). Trans. from syn. of *Priocnemis* (*Priocnemis*) *germana* (Cresson), p. 914 (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 235).

*rufigastra* (Provancher). Syn. of *congrua* (Cresson). In orig. cit. change 1889 to 1887.

\**semirufa* Dreisbach. Syn. of *congrua* (Cresson).

\**shappirioi* Dreisbach. Syn. of *clypeata* (Banks).

### \*Tribe NOTOCYPHINI

This tribal heading should be inserted above the genus *Notocyphus* Smith, p. 920.

#### Genus NOTOCYPHUS Smith, p. 920

\**dorsalis arizonicus* Townes. L. Sonoran Fauna of Ariz. and Calif.

*Notocyphus dorsalis arizonicus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 223. ♂ ♀.

*dorsalis dorsalis* Cresson. Tex.; Mexico (Chihuahua, Durango).

*Notocyphus plagiatus dorsalis* Cresson of Catalog. *Notocyphus plagiatus* Smith is specifically distinct from *dorsalis*, and occurs in Mexico (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209:224).

*plagiatus dorsalis* Cresson. Replaced by *dorsalis dorsalis* Cresson.

*plagiatus* new subspecies. Delete entire entry.

### \*Tribe CEROPALINI

This tribal heading should be inserted above the genus *Ceropales* Latreille, p. 920.

#### Genus CEROPALES Latreille, pp. 920-921

*bipunctata tibialis* Banks. N. C. to Fla.

? *Ceropales floridensis* Dreisbach (syn. by Townes, 1957. U. S. Natl. Mus. Bul. 209: 261).

*brevicornis* Patton. La., Tex., N. Mex. north to Pa. and Alta., Wash.

*Ceropales fulvipes* Cresson of Catalog, in part. *C. brevicornis* not a syn. (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 268).

*cubensis albopieta* Cresson. South. Tex. to Panama, Baja Calif. Typical *cubensis* Cresson occurs in the West Indies.

*Ceropales cubensis* Cresson of Catalog, in part (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 250).

\**elegans aquilonia* Townes. Alta., Minn.

*Ceropales elegans aquilonia* Townes, 1957. U. S. Natl. Mus. Bul. 209: 256. ♂.

*elegans quaintancei* Viereck. Md. to Fla., Ill., Kans.

*femoralis* Cresson. Va. to Kans., south to Panama. Remove *hatoda* Brimley from syn.

*floridensis* Dreisbach. Probable syn. of *bipunctata tibialis* Banks.

*fraterna fraterna* Smith. Replaced by *maculata fraterna* Smith. In orig. cit. of *minima* Provancher, change 1889 to 1887.

*fraterna stretchii* Fox. Replaced by *maculata stretchii* Fox.

*fulvipes* Cresson. Tex. Remove *brevicornis* Patton from syn.

*hatoda* Brimley. N. Y. to N. C., Minn. Host: *Ageniella* (*Ageniella*) *partita* Bks.

*Ceropales femoralis* Cresson of Catalog, in part. *C. hatoda* not a syn. (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 267).

*longipes* Smith. N. J. to Ga., Mo.

\**maculata caenosa* Townes. Calif. (Sierra Nevada Mts.).

*Ceropales maculata caenosa* Townes, 1957. U. S. Natl. Mus. Bul. 209: 242. ♀ ♂.

*maculata fraterna* Smith. Transcont., chiefly in Canad. and Transit. Zones, but replaced in far West by *maculata stretchii* Fox and *maculata caenosa* Townes, and in the Alberta-Dakotas area by *maculata rhodomerus* Townes. Typical *maculata* (Fabricius) is European.

*Ceropales fraterna fraterna* Smith of Catalog (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 244).

\**maculata rhodomerus* Townes. South. Alta. and Mont. to N. and S. Dak., and occasional individuals from Minn., Mich., N. Y., Mass. in range of *maculata fraterna* Smith.

*Ceropales maculata rhodomerus* Townes, 1957. U. S. Natl. Mus. Bul. 209: 243. ♀ ♂.

*maculata stretchii* Fox. Calif. east of Sierra Nevada Mts., north to B. C. and east to Idaho, north. Nev., and Utah.

*Ceropales fraterna stretchii* Fox of Catalog (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 247).

*neomexicana* Rohwer. Mexico (Zacatecas, Durango).

*nigripes* Cresson. Mexico (Durango, Zacatecas).

\**pacifica* Townes. Oreg., Calif.

*Ceropales pacifica* Townes, 1957. U. S. Natl. Mus. Bul. 209: 264. ♂ ♀.

*robinsonii robinsonii* Cresson, changed status.

*Ceropales robinsonii* Cresson. Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 253).

*robinsonii stigmatica* Banks, changed status. Kans.

*Ceropales stigmatica* Banks. Reduced to subsp. rank (*teste* Townes, 1957. U. S. Natl. Mus. Bul. 209: 255).

\**rugata* Townes. Oreg., Calif., Wyo., Utah, Gulf and South Atlantic States; Mexico (Zacatecas, Teotihuacan).

*Ceropales rugata* Townes, 1957. U. S. Natl. Mus. Bul. 209: 264. ♂ ♀.

*stigmatica* Banks. A subsp. of *robinsonii* Cresson.

## Subfamily POMPILINAE

### Tribe APORINI

#### APORUS subgenus APORUS Spinola, pp. 921-922

*hermes* Bradley. Syn. of *niger* (Cresson).

*luxus luxus* (Banks). Ariz.

*niger* (Cresson).

*Aporus* (*Aporus*) *hermes* Bradley (syn. by Evans, 1956. Ent. News 67:6).

**APORUS subgenus PLECTRAPORUS Bradley, p. 922**

*hirsutus* (Banks). Ariz.

**Genus ALLAPORUS Banks, p. 922**

*amabilis* Evans. Tex.; Mexico (Zacatecas, Durango).

\**aquilonaris* (Dreisbach). Syn. of *rufiventris* (Cresson).

*rufiventris* (Cresson).

\**Euplaniceps aquilonaris* Dreisbach, 1952. Ent. News 63:95, 3 figs.  
♂. (Syn. by Evans, 1956. Ent. News 67:6.)

**Genus PSORTHASPIIS Banks, p. 923**

Taxonomy: Evans, 1954. Amer. Mus. Novitates 1662 (key to males, and all-black females).

\**arizonensis* Dreisbach. A subsp. of *macronotum* (Kohl).

*conocephala* Bradley. A subsp. of *portiae* (Rohwer).

*cressoni* Bradley. A subsp. of *macronotum* (Kohl).

*legata* (Cresson). Fla., Kans.

*levis* Bradley. Syn. of *macronotum cressoni* Bradley.

\**macronotum arizonensis* Dreisbach. South. Ariz. Typical *macronotum* (Kohl) is Mexican.

*Psorthaspis arizonensis* Dreisbach, 1950. Brooklyn Ent. Soc. Bul. 45: 119.  
♀. Reduced to subsp. rank (*teste* Evans, 1954. Amer. Mus. Novitates 1662: 10).

*macronotum cressoni* Bradley, changed status. Mexico (Nuevo Leon).

*Psorthaspis cressoni* Bradley. Reduced to subsp. rank (*teste* Evans, 1954. Amer. Mus. Novitates 1662: 11).

*Psorthaspis levis* Bradley (syn. by Evans, *loc. cit. supra*).

*mariae* (Cresson).

Taxonomy: Krombein, 1956. Ent. Soc. Wash. Proc. 58: 155.

*morosa* Bradley. Syn. of *planata* (Fox).

*planata* (Fox). Mexico (Baja Calif.).

*Psorthaspis morosa* Bradley (syn. by Evans, 1954. Amer. Mus. Novitates 1662: 12).

*portiae conocephala* Bradley, changed status. Mexico (Nuevo Leon).

*Psorthaspis conocephala* Bradley. Reduced to subsp. rank (*teste* Evans, 1954. Amer. Mus. Novitates 1662: 13).

*portiae portiae* (Rohwer), changed status. Mexico (Chihuahua, Durango, Zacatecas).

*Psorthaspis portiae* (Rohwer). Reduced to subsp. rank (*teste* Evans, 1954. Amer. Mus. Novitates 1662:12).

**\*Genus AULOCOSTETHUS Ashmead**

*Aulocostethus* Ashmead, 1902. Canad. Ent. 54: 133.

Type: *Aulocostethus bifasciatus* Ashmead. By monotypy and orig. desig.

Place in Aporini after *Psorthaspis* Banks, p. 923.

\**pulcherrimus* Evans. Fla. (Royal Palm Hammock in Everglades Natl. Park).

*Aulocostethus pulcherrimus* Evans, 1955. Ent. News 66: 150. ♀.



## Tribe POMPILINI

Revision: Evans, 1951. Amer. Ent. Soc. Trans. 76: 207-361. *Op. cit.*, 77: 203-340.

## Genus TASTIOTENIA Evans, p. 924

*festiva* Evans. Calif. (Borego), Ariz.

Taxonomy: Evans, 1954. Pan-Pacific Ent. 30: 103. ♂.

## Genus CHALCOCHARES Banks, p. 924

*hirsutifemur* (Banks). Tex.

## Genus EVAGETES Lepeletier, pp. 924-925

\**Streptosella* Dreisbach, 1950. Amer. Midland Nat. 43: 570 (syn. by Evans, 1951. Amer. Ent. Soc. Trans. 77: 310).

Type: (*Streptosella michiganensis* Dreisbach, a lapsus for *steyskali* Dreisbach) = *Evagetes crassicornis crassicornis* (Shuckard). Orig. desig.

\**albertensis* (Dreisbach). Syn. of *crassicornis crassicornis* (Shuckard).

\**asignus* Dreisbach. Mass. south to Fla., west to Tex., Mich., Iowa, Kans., Colo.

*Evagetes asignus* Dreisbach, 1956. Ent. News 67: 147, 2 figs. ♂ ♀.

*crassicornis crassicornis* (Shuckard).

\**Streptosella michiganensis* Dreisbach, 1950. Amer. Midland Nat. 43: 571. Nom. nud., a lapsus for *steyskali*.

\**Streptosella steyskali* Dreisbach, 1950. Amer. Midland Nat. 43: 571, figs. 1, 2. ♂. (Syn. by Evans, 1951. Amer. Ent. Soc. Trans. 77: 311).

\**Streptosella albertensis* Dreisbach, 1950. Amer. Midland Nat. 43: 572, figs. 3, 4. ♂. (Syn. by Evans, *loc. cit. supra*).

\**Streptosella stricklandi* Dreisbach, 1950. Amer. Midland Nat. 43: 574, figs. 5, 6. ♂. (Syn. by Evans, *loc. cit. supra*).

*hyacinthinus* (Cresson). Delete *mohave* (Banks) and *quadriscopinosus* (Banks) from syn.

\**michiganensis* (Dreisbach). Nom. nud. under *crassicornis crassicornis* (Shuckard).

*mohave* (Banks). N. Y. to Fla., west to Ariz., Kans. Host: *Anoplius* (*Arachnophroctonus*) *apiculatus autumnalis* (Bks.) and *A. (Ar.) americanus juxtus* (Cr.).

*Sophropompilus quadriscopinosus* Banks. Preocc. in *Evagetes* by *Pompilus quadriscopinosus* Kohl.

*Sophropompilus mohave* Banks. A valid sp., not a syn. of *hyacinthinus* (Cresson) (*teste* Krombein, 1953. Wasmann Jour. Biol. 10: 320.)

Biology: Evans, Lin and Yoshimoto, 1953. N. Y. Ent. Soc. Jour. 61: 72-77.

*padrinus minusculus* (Banks). Fla.

*parvus* (Cresson). N. W. T.

\**steyskali* (Dreisbach). Syn. of *crassicornis crassicornis* (Shuckard).

\**stricklandi* (Dreisbach). Syn. of *crassicornis crassicornis* (Shuckard).

## AGENIOIDEUS subgenus AGENIOIDEUS Ashmead, p. 925

*humilis* (Cresson). Prey: *Acacesia hamata* (Hentz).

Biology: Krombein, 1953. Brooklyn Ent. Soc. Bul. 48: 113-115.

## AGENIOIDEUS subgenus GYMNOCHARES Banks, p. 925

*birkmanni* (Banks). N. C., Md., W. Va.

## Genus SERICOPOMPILUS Howard, p. 926

*angustatus* (Cresson). Fla., Wyo.

**apicalis** (Say). Prey: Spiders belonging to Salticidae, Thomisidae, Araneidae, Oxyopidae, and Anyphaenidae.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 262-264.

**neotropialis** (Cameron). Ark., Kans.

**Genus EPISYRON Schjødte, pp. 926-927**

**biguttatus biguttatus** (Fabricius). Prey: Epeiridae.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 264-266.—  
Krombein, 1953. Ent. Soc. Wash. Proc. 55: 115-116.

**oregon** Evans. Colo.

**posterus** (Fox). Prey: *Eustala anastera* (Walck.), *Eustala cepina* (Walck.), *Araneus* sp., *Neoscona* sp., *Argiope aurantia* Luc.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 266-268.—  
Krombein, 1955. Ent. Soc. Wash. Proc. 57: 149-150.

**quinquenotatus quinquenotatus** (Say). Prey: *Neoscona* sp.

**snowi** (Viereck). Prey: *Neoscona benjamina* (Walck.), *Cyclosa conica* (Pall.).

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 268-269.—  
Krombein, 1953. Ent. Soc. Wash. Proc. 55: 116.

**Genus POECILOPOMPILUS Howard, pp. 927-928**

**algidus coquilletti** (Provancher). In orig. cit. of *coquilletti* change 1889 to 1887.

**interruptus interruptus** (Say). Prey: *Neoscona benjamina* (Walck.), *Argiope aurantia* Luc., *Epeira foliata* (Fourcr.).

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 269-272.—Strandtmann, 1953. Kans. Ent. Soc. Jour. 26: 45-46.

**Genus TACHYPOMPILUS Ashmead, p. 928**

**ferrugineus burrus** (Cresson). Nests in loose dry soil beneath house. Prey: *Lycosa rabida* (Walck.), *L. antelucana* Mont.

Biology: Strandtmann, 1953. Kans. Ent. Soc. Jour. 26: 46-48, fig. 1.

**ferrugineus ferrugineus** (Say). Prey: *Lycosa* spp.

**torridus torridus** (Smith). Utah.

**ANOPLIUS subgenus LOPHOPOMPILUS Radoszkowski, pp. 928-929**

**atrox** (Dahlbom). Prey: *Dolomedes tenebrosus* Hentz.

**cleora** (Banks). Prey: *Arctosa littoralis* (Hentz).

**ANOPLIUS subgenus NOTIOCHARES Banks, p. 929**

**amethystinus atramentarius** (Dahlbom). Prey: *Lycosa rabida* Walck., and *Arctosa littoralis* (Hentz).

**ANOPLIUS subgenus ARACHNOPHROCTONUS Howard, pp. 930-931**

**americanus juxtus** (Cresson). Prey: *Arctosa littoralis* (Hentz), *Peucetia viridans* Hentz, and *Schizocosa crassipes* (Walck.). Parasite: *Evagetes mohave* (Bks.).

**americanus trifasciatus** (Beauvois). N. C.

**apiculatus autumnalis** (Banks). Prey: *Arctosa littoralis* (Hentz). Parasite: *Evagetes mohave* (Bks.).

Biology: Evans, Lin and Yoshimoto, 1953. N. Y. Ent. Soc. Jour. 61: 61-78.

**apiculatus pretiosus** (Banks). Prey: *Arctosa littoralis* (Hentz), *Lycosa helluo* (Walck.).

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 272-275.

\***gaigei** (Dreisbach). Syn. of *xerophilus* Evans.

**marginalis** (Banks). Prey: *Geolycosa pikei* (Marx).

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 275-276.—  
Krombein, 1953. Ent. Soc. Wash. Proc. 55: 116-117.

\***occidentalis** (Dreischbach), n. comb. Calif. (Redwood City).

*Arachnophroctonus occidentalis* Dreischbach, 1954. Amer. Midland Nat. 52: 437, figs. 13, 17. ♂.

**semirufus** (Cresson). N. Mex. Prey: *Lycosa* and *Schizocosa* spp.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 277-280.—Evans, 1953. Syst. Zool. 2: 168-169.

**xerophilus** Evans. Tex.

\**Arachnophroctonus gaigei* Dreischbach, 1954. Amer. Midland Nat. 52: 438, figs. 4, 11. ♂. (Syn. by Evans, 1956. Ent. News 67: 7.)

#### **ANOPLIUS subgenus POMPILINUS Ashmead, pp. 931-932**

\***basirufus** (Dreischbach). Syn. of **marginatus** (Say).

**californiae** Evans. Mexico (Sonora, Baja Calif.).

**clystera** (Banks). Mexico (Chihuahua, Jalisco).

\**Pompilinus submarginatus* Dreischbach, 1952. Amer. Midland Nat. 48: 146, figs. 14, 17. ♂. (Syn. by Evans, 1956. Ent. News 67: 7.)

**cylindricus** (Cresson). Calif., Fla., Mexico (Chihuahua).

**estellina** (Banks). Mexico, Guatemala.

\**Pompilinus utahensis* Dreischbach, 1952. Amer. Midland Nat. 48: 145, figs. 15, 16. ♂. (Syn. by Evans, 1956. Ent. News 67: 7.)

\**Pompilinus minutus* Dreischbach, 1952. Amer. Midland Nat. 48: 147, figs. 7, 8. ♂. (Syn. by Evans, *loc. cit. supra.*)

**fraternus** (Banks). Mexico (Tamaulipas). Prey: Lycosid and Salticid spiders.

Biology: Krombein and Evans, 1954. Ent. Soc. Wash. Proc. 56: 231.—  
Evans, Krombein, and Yoshimoto, 1955. Brooklyn Ent. Soc. Bul. 50: 77-84, 3 figs.

**grandiflexionis** Evans. Mexico (Durango, Zacatecas).

**insolens** (Banks). Mexico (south to Michoacan).

**krombeini** Evans. Prey: *Schizocosa* sp.

Biology: Krombein, 1953. Ent. Soc. Wash. Proc. 55: 117-118.

**marginatus** (Say).

\**Pompilinus basirufus* Dreischbach, 1952. Amer. Midland Nat. 48: 149, figs. 9, 10. ♂ (♀ misdet.) (Syn. by Evans, 1956. Ent. News 67: 8.)

\**Pompilinus basirufous* (!) Dreischbach, 1952. *Op. cit.*, p. 158.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 280-281.

\***minutus** (Dreischbach). Syn. of **estellina** (Banks).

\***rectangularis gillaspyi** Evans. Tex., N. C., N. J. in Austrorip. Fauna.

*Anoplius (Pompilinus) rectangularis gillaspyi* Evans, 1951. Amer. Ent. Soc. Trans. 76: 310, fig. 101. ♂.

**rectangularis rectangularis** (Dreischbach), changed status. Transit. and U. Austr. Zones, Mass. to Minn., south to Colo., Kans., Ohio and N. C.

*Anoplius (Pompilinus) rectangularis* (Dreischbach). Reduced to subsp. rank (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 76: 309, figs. 100, 131).

\***shappirioi** (Dreischbach), n. comb. D. C.

*Pompilinus shappirioi* Dreischbach, 1952. Amer. Midland Nat. 48: 148, figs. 5, 6. ♂.

**splendens** (Dreischbach). Fla.; Mexico (Chihuahua, Durango).

**stenotus** (Banks). South. Ala. Prey: *Lycosa* sp.

Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 230.



**subcylindricus** (Banks). Ariz.; Mexico (south to Michoacan and Puebla).  
Prey: *Micaria* sp., *Xysticus banksi* Bry.

\***submarginatus** (Dreisbach). Syn. of **clystera** (Banks).

**texanus** (Dreisbach). Mexico (Morelos).

\***townesi** Evans. Alleghan. Fauna, N. H. west to Man., Conn. to Fla.

*Anoplus (Pompilius) townesi* Evans, 1951. Amer. Ent. Soc. Trans.  
76: 313, fig. 102. ♂.

\***utahensis** (Dreisbach). Syn. of **estellina** (Banks).

#### ANOPLIUS subgenus ANOPLIUS Dufour, pp. 932-933

\***banksi** Dreisbach. Syn. of **nigerrimus** (Scopoli).

\***basalis** Dreisbach. Syn. of **piliventris** (Morawitz).

**depressipes** Banks. Tex., Fla.

\***elongatus** Dreisbach. Syn. of **ventralis ventralis** (Banks).

\***hispidulus** Dreisbach. Ill., Mich., N. Y. Conn., Md.

*Anoplus hispidulus* Dreisbach, 1950. Amer. Midland Nat. 43: 577, figs.  
25, 26. ♂.

**illinoensis** (Robertson). Utah.

**imbellis** Banks.

\**Anoplus imbellis* var. **major** Dreisbach, 1950. Amer. Midland Nat.  
43: 581, figs. 20, 24. ♂. (Syn. by Evans, 1951. Amer. Ent. Soc.  
Trans. 76: 348, figs. 112, 142, 167.)

\**Anoplus subimbellis* Dreisbach, 1952. Amer. Midland Nat. 48: 155,  
figs. 23, 25. ♂. (Syn. by Evans, 1956. Ent. News 67: 8.)

\***imbellis** var. **major** Dreisbach. Syn. of **imbellis** Banks.

**ithaca** (Banks). Prey: *Arctosa littoralis* (Hentz) and *Pardosa milvina*  
(Hentz).

**nigerrimus** (Scopoli).

\**Anoplus banksi* Dreisbach, 1950. Amer. Midland Nat. 43: 579, figs.  
13, 14. ♂. (Syn. by Evans, 1951. Amer. Ent. Soc. Trans.  
76: 313, figs. 106, 140, 163.)

\***piliventris** (Morawitz). Holarctic; transcont. in Canad. Zone, south to  
N. B., Vt., Man. and in mts. to N. Mex. and Calif.

\**Pompilus piliventris* Morawitz, 1889. Hor. Soc. Ent. Ross. 23: 122. ♂.

\**Anoplus basalis* Dreisbach, 1950. Amer. Midland Nat. 43: 578, figs.  
9, 10. ♂. (Syn. by Evans, 1956. Ent. News 67: 9.)

\***subimbellis** Dreisbach. Syn. of **imbellis** Banks.

\***subtarsatus** Dreisbach. Syn. of **ventralis ventralis** (Banks).

**ventralis tarsatus** (Banks). Prey: *Tarentula kochi* Keys.

**ventralis ventralis** (Banks).

\**Anoplus elongatus* Dreisbach, 1950. Amer. Midland Nat. 43: 576, figs.  
11, 12. ♂. (Syn. by Evans, 1951. Amer. Ent. Soc. Trans.  
76: 353, figs. 114, 141, 147, 164.)

\**Anoplus subtarsatus* Dreisbach, 1950. Amer. Midland Nat. 43: 578,  
figs. 18, 22. ♂. (Syn. by Evans, loc. cit. supra.)

#### POMPILUS subgenus POMPILUS Fabricius, p. 933

Delete; the typical subgenus does not occur in North America. **P. expulsus** Schulz, placed in this subgenus in the Catalog, has been transferred to the subgenus **Xerochaeres** Evans, p. 934.

#### POMPILUS subgenus HESPEROPOMPILUS Evans, pp. 933-934

\***boharti** Evans. Calif. (Borego).

*Pompilus (Hesperopompilus) boharti* Evans, 1951. Amer. Ent. Soc.  
Trans. 77: 216, figs. 176, 204. ♂.

\**evagetoides* Evans. Syn. of *jacintoensis* Evans.

*jacintoensis* Evans. Ariz. Change ♀ ♂ to ♀ (♂ misdet.).

\**Pompilus (Hesperopompilus) evagetoides* Evans, 1951. Amer. Ent. Soc. Trans. 77: 217. ♂. (Syn. by Evans, 1956. Ent. News 67: 9.)

\***POMPILUS subgenus XEROCHARES Evans**

*Pompilus* subg. *Xerochares* Evans, 1951. Amer. Ent. Soc. Trans. 77: 218.

Type: (*Pompilus connexus* Fox) = *Pompilus expulsus* Schulz. By monotypy and orig. desig.

Place in Pompilini after subgenus *Hesperopompilus* Evans, p. 934. Contains only *P. expulsus* Schulz, placed in subgenus *Pompilus* in Catalog.

\***POMPILUS subgenus PERISSOPOMPILUS Evans**

*Pompilus* subgenus *Perissopompilus* Evans, 1951. Amer. Ent. Soc. Trans. 77: 222.

Type: *Pompilus (Ammosphex) phoenix* Evans. Orig. desig.

Place in Pompilini after subgenus *Xerochares* Evans, p. 934.

\**perfasciatus* Evans. Calif. (Riverside Co.).

*Pompilus (Perissopompilus) perfasciatus* Evans, 1951. Amer. Ent. Soc. Trans. 77: 225. ♀.

*phoenix* Evans. Mexico (Hidalgo, Mexico, Puebla). Transf. from subgenus *Ammosphex* Wilcke, p. 934 (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 223).

**POMPILUS subgenus AMMOSPHEX Wilcke, p. 934**

*angularis angularis* (Banks), changed status. The other subsp., *a. volcanicus* Evans, is Mexican.

*Pompilus (Ammosphex) angularis* (Banks). Reduced to subsp. rank (*teste* Evans, 1953. Ent. Soc. Amer. Ann. 46: 538).

*anomalus anomalus* (Dreisbach), changed status. U. Sonor. and Transit. Faunas, Alta. to Ariz., Calif.; Baja Calif. The other subsp. *a. durangoanus* Evans, is Mexican.

*Pompilus (Ammosphex) parvulus* (Banks) in part, of Catalog (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 237, figs. 180, 210).

*Pompilus (Ammosphex) anomalus* (Dreisbach). Reduced to subsp. rank (*teste* Evans, 1953. Ent. Soc. Amer. Ann. 46: 538).

\**Anopompilinus arnaudi* Dreisbach, 1952. Amer. Midland Nat., 48: 153, figs. 1, 2. ♂. (Syn. by Evans, 1956. Ent. News 67: 9.)

\**arnaudi* (Dreisbach). Syn. of *anomalus* (Dreisbach).

*dakota* (Dreisbach). Transit. Zone, Mont. and N. Dak. south to Ariz. and N. Mex.

*Anopompilinus dakota* Dreisbach, 1950. Amer. Midland Nat. 42: 728, figs. 9, 10. ♂. (Erroneously placed in syn. of *michiganensis* Dreisbach in Catalog.)

*imbecillus imbecillus* (Banks), changed status. Transcont. in Transit. Zone except Pacific States.

*Pompilus (Ammosphex) imbecillus* (Banks). Reduced to subsp. rank (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 247, figs. 182, 213, 235).

\**imbecillus ojbwae* Evans. Canad. and Hudson. Zones, N. B. and B. C., north to N. W. T.

*Pompilus (Ammosphex) imbecillus ojbwae* Evans, 1951. Amer. Ent. Soc. Trans. 77: 249. ♀ ♂.

*michiganensis* (Dreisbach). Delete *dakota* (Dreisbach) from syn., and change range to Hudson., Canad., and Transit. Zones from N. B., N. W. T., Yukon, south to Alta., Minn., N. Y., and in mts. to Colo., and Ga.

*occidentalis* (Dreisbach). Mexico (Puebla, Mexico).

**parvulus parvulus** (Banks), changed status. The other subsp., *p. tepahuuanus* Evans and *p. otomi* Evans, are Mexican.

***Pompilus (Ammosphex) anomalus*** (Dreisbach), a valid species. Remove from syn. (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 237).

***Pompilus (Ammosphex) parvulus*** (Banks). Reduced to subsp. rank (*teste* Evans, 1953. Ent. Soc. Amer. Ann. 46: 538).

***phoenix*** Evans. Transf. to subgenus **\*Perissopompilus** Evans.

**\*silvivagus** Evans. Transit. Zone forests, Tex., N. Mex., Colo., Ariz., Calif.

***Pompilus (Ammosphex) solonus silvivagus*** Evans, 1951. Amer. Ent. Soc. Trans. 77: 241, figs. 184, 218. ♂ ♀. Raised to sp. rank (*teste* H. E. Evans, *in litt.*).

**solonus solonus** (Banks), changed status. The other subsp., *s. teotihuacanus* Evans, is Mexican.

***Pompilus (Ammosphex) solonus*** (Banks). Reduced to subsp. rank (*teste* Evans, 1953. Ent. Soc. Amer. Ann. 46: 538).

#### **POMPILUS subgenus ARACHNOSPILA Kincaid, pp. 934-935**

**arctus** Cresson.

**\*Pycnopompilus siouxensis** Dreisbach, 1950. Amer. Midland Nat. 43: 592, figs. 46, 47. ♂. (Syn. by Evans, 1951. Amer. Ent. Soc. Trans. 77: 258, figs. 191, 221.)

**\*Pycnopompilus sculleni** Dreisbach, 1950. Amer. Midland Nat. 43: 594, figs. 33, 37. ♂. (Syn. by Evans, *loc. cit. supra.*)

**\*Pycnopompilus parvus** Dreisbach, 1952. Amer. Midland Nat. 48: 152, figs. 3, 4. ♂. (Syn. by Evans, 1956. Ent. News. 67: 10.)

**\*parvus** (Dreisbach). Syn. of **arctus** Cresson.

**scelestus** Cresson.

**\*Pycnopompilus subscelestus** Dreisbach, 1950. Amer. Midland Nat. 43: 591, figs. 39, 40. ♂. (Syn. by Evans, 1951. Amer. Ent. Soc. Trans. 77: 262, figs. 190, 219.)

**\*sculleni** (Dreisbach). Syn. of **arctus** Cresson.

**\*siouxensis** (Dreisbach). Syn. of **arctus** Cresson.

**\*subscelestus** (Dreisbach). Syn. of **scelestus** Cresson.

#### **POMPILUS subgenus ANOPLOCHARES Banks, p. 935**

**apicatus** Provancher. Fla.

**similaris** (Banks). Fla.

#### **Genus APORINELLUS Banks, pp. 935-936**

**banksi** Bequaert. Syn. of **taeniatus taeniatus** (Kohl.)

**\*bridwelli** Evans. Kans., Tex., Ariz., Calif., Oreg.

***Aporinellus bridwelli*** Evans, 1951. Amer. Ent. Soc. Trans. 77: 291, figs. 197, 265. ♂.

**completus** Banks.

***Aporinellus basalis*** Banks (erroneously placed in syn. of *fasciatus* (Smith) in Catalog, *teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 293).

**fasciatus** (Smith), changed status.

***Aporinellus fasciatus*** (Smith) of Catalog, in part. (*Aporinellus basalis* Banks is a syn. of **completus** Banks, *teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 293.)

**rufus** Banks. A subsp. of **taeniatus** (Kohl.)

**semirufus** Banks. A subsp. of **taeniatus** (Kohl.)

**\*sinuatus** Evans. L. and U. Austr. Zones, north to N. J., Kans., Mont. and B. C.

***Aporinellus sinuatus*** Evans, 1951. Amer. Ent. Soc. Trans. 77: 298, figs. 199, 246, 250, 253, 256. ♂ ♀.



\**taeniatus baboquivari* Evans. Ariz. (Baboquivari Mts.).

*Aporinellus taeniatus baboquivari* Evans, 1951. Amer. Ent. Soc. Trans. 77: 286. ♀.

*taeniatus rufus* Banks. Nebr.

*Aporinellus rufus* Banks. Reduced to subsp. rank (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 287).

*taeniatus semirufus* Banks, changed status.

*Aporinellus semirufus* Banks. Reduced to subsp. rank (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 285).

*taeniatus taeniatus* (Kohl), changed status.

*Aporinellus taeniatus* (Kohl). Reduced to subsp. rank (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 282).

*Aporinellus banksi* Bequaert (syn. by Evans, *loc. cit. supra*).

*taeniatus wheeleri* Bequaert, changed status. Alleghan. Fauna, Mass. to N. C.

*Aporinellus wheeleri* Bequaert. Reduced to subsp. rank (*teste* Evans, 1951. Amer. Ent. Soc. Trans. 77: 284).

*wheeleri* Bequaert. A subsp. of *taeniatus* (Kohl).

#### Genus ALLOCHARES Banks, p. 936

*azureus* (Cresson).

\**Pompilus sinaloae* Cameron, 1893. Biol. Cent.-Amer., Hym., v. 2, p. 192. ♀. (Syn. by Evans, 1951. Amer. Ent. Soc. Trans. 77: 302.)

\**sinaloae* (Cameron). Syn. of *azureus* (Cresson).

#### Genus PARACYPHONONYX Gribodo, pp. 936-937

*funereus* (Lepelletier). Calif. Prey: *Lycosa lenta* (Hentz).

### Superfamily SPHECOIDEA

#### Family AMPULICIDAE

##### AMPULEX subgenus RHINOPSIS Westwood, p. 938

*canaliculata* Say. Mass.

#### Family SPHECIDAE

##### Genus DIPLOPLECTRON Fox, pp. 938-939

\**diablensis* Williams. Calif. (Mt. Diablo, Contra Costa Co.).

*Diploplectron diablensis* Williams, 1950. Wasmann Jour. Biol. 8: 363, fig. 1. ♂.

*recticulatus* Williams.

Taxonomy: Williams, 1950. Wasmann Jour. Biol. 8: 365, fig. 2. ♀.

##### ASTATA subgenus DRYUDELLA Spinola, p. 940

*immigrans* Williams. Calif.

##### Genus BOTHYNOSTETHUS Kohl, p. 941

*distinctus* Fox. Va., Fla.

##### Genus PISONOPSIS Fox, p. 941

Revision: Williams, 1954. Pan-Pacific Ent. 30: 235-246.

*birkmanni* Rohwer. Nests in hollow stems. Prey: small thomisid spiders.

Biology: Williams, 1954. Pan-Pacific Ent. 30: 236, 238.

*clypeata clypeata* Fox, changed status.

*Pisonopsis clypeata* Fox. Reduced to subsp. rank (*teste* Williams, 1954. Pan-Pacific Ent. 30: 240, figs. 7, 12, 19, 30, 32).

- \**clypeata occidentalis* Williams. Calif. Nests in ground in *Diadasia* burrows.  
*Pisonopsis clypeata occidentalis* Williams, 1954. Pan-Pacific Ent. 30:  
 242, figs. 1-5, 8, 10, 15, 20, 22, 23, 26, 29. ♀ ♂.  
 Biology: Linsley, MacSwain and Smith, 1952. Calif. Univ. Pubs. Ent.  
 9: 274.
- \**triangularis californica* Williams. Calif.  
*Pisonopsis triangularis californica* Williams, 1954. Pan-Pacific Ent. 30:  
 245, figs. 6, 9, 11, 13, 16-18, 24, 31. ♀ ♂.
- triangularis triangularis* Ashmead, changed status. Wyo., Calif.  
*Pisonopsis triangularis* Ashmead. Reduced to subsp. rank (*teste* Williams,  
 1954. Pan-Pacific Ent. 30: 245, fig. 28).

#### Genus **PLENOCULUS** Fox, pp. 941-942

- cockerelli* Fox. Calif.; Baja Calif. Prey: small moth caterpillars.
- davisi atlanticus* Viereck, changed status. Conn. south to N. C., Tex.  
*Plenoculus davisi* Fox of Catalog, in part. *P. atlanticus* not a syn. (*teste*  
 Krombein, 1955. Ent. Soc. Wash. Proc. 57: 146).
- davisi davisi* Fox, changed status. Cent. N. Y., Mich., Ind., Wis., Iowa, Minn.,  
 N. Dak., Mont., northeast. Calif.  
*Plenoculus davisi* Fox of Catalog, in part. *P. atlanticus* not a syn. but a  
 valid subsp.

#### Genus **SOLIERELLA** Spinola, pp. 942-944

- affinis* (Rohwer). Calif.
- boharti* Williams.  
*Solierella lassemi* Williams (only a color phase of *boharti*, *teste* Williams,  
 1953. Pan-Pacific Ent. 29: 157).
- corizi* Williams. Tex. (Llano Co.)
- inermis* (Cresson). Fla.
- lassemi* Williams. Syn. of *boharti* Williams.
- major* (Rohwer). Calif. (San Gabriel Mts.).  
 Taxonomy: Williams, 1953. Pan-Pacific Ent. 29: 158, figs. 6, 8. ♀ ♂.
- nigrans* Krombein. W. Va., Calif.
- peckhami* (Ashmead). Fla., Calif.
- striatipes* (Ashmead). Baja Calif.
- vierecki* (Rohwer). Calif.
- \**weberi* Williams. Calif. (Riverside).  
*Solierella weberi* Williams, 1955. Pan-Pacific Ent. 31: 85, 1 fig. ♂.

#### Genus **NITELOPTERUS** Ashmead, p. 944

- slossonae* Ashmead. Prey: immature Salticidae, *Metaphidippus galathea*  
 (Walck.), *Habrocestum pulex* (Hentz). Nests in sand.
- \**NiteLOPTERUS slossonae barberi* Krombein, 1954. Amer. Ent. Soc. Trans.  
 80: 12, fig. 8. ♀. N. syn. (a variant, not a subsp., *teste* K. V.  
 Krombein).  
 Biology: Krombein and Evans, 1954. Ent. Soc. Wash. Proc. 56: 232.—  
 Krombein and Evans, 1955. Ent. Soc. Wash. Proc. 57: 231.
- \**slossonae barberi* Krombein. Syn. of *slossonae* Ashmead.

#### Genus **NITELA** Latreille, pp. 944-945

- virginiensis* Rohwer. Wis.

#### **TACHYTES** subgenus **TACHYPLENA** Banks, pp. 946-947

- harpax* Patton. N. C.

**TACHYTES subgenus TACHYNANA Banks, pp. 947-948**

*minutus* Rohwer, Fla.

*obductus* Fox. Fla., N. C.

*parvus* Fox. Fla.

*pattoni* Banks. N. C.

**Genus LARROPSIS Patton, pp. 948-949**

*aurantia* (Fox). Prey: *Ceuthophilus fusiformis* Scudd.

**TACHYSPHEX subgenus TACHYSPHEX Kohl, pp. 949-953**

*aethiops* (Cresson). Place Cresson in parentheses in sp. heading.

*belfragei* Cresson. S. C. (Clemson).

*laevifrons* (Smith). Change p. 245 to p. 291 in orig. cit.

*sepulchralis* Williams. Change spelling in sp. heading and orig. cit. from *sepulchralis* to *sepulchralis*.

*similis* Rohwer. Prey: *Radinotatum* sp.

*terminatus* (Smith). Nesting in loose topsoil. Prey: First and second instar nymphs of *Melanoplus* and *Tryxalus*.

Biology: Strandtmann, 1953. Kans. Ent. Soc. Jour. 26: 49-51, fig. 2.

**\*Genus PROSOPIGASTRA Costa**

*Prosopigastra* Costa, 1867. Mus. Zool. Napoli Ann. 4: 88.

Type: *Prosopigastra punctatissima* Costa. By monotypy.

Place after *Tachyspex* Kohl on p. 953. An undescribed species belonging to a probable new subgenus occurs in California.

**MOTES subgenus NOTOGONIUS Howard, p. 954**

Taxonomy: Krombein, 1954. Amer. Ent. Soc. Trans. 80: 15-17 (key to U. S. spp.).

*aequalis* (Fox). Prey: *Acheta assimilis* F., nymph. Mexico (Zacatecas).

*argentata* (Palisot de Beauvois). Mexico (Durango, Zacatecas). Prey: Immature *Acheta assimilis* F. and *Nemobius* sp.

Biology: Krombein and Evans, 1955. Ent. Soc. Wash. Proc. 57: 232.

\**fuliginosa* (Dahlbom), n. comb. Fla. (Matheson Hammock); Cuba.

*Larra fuliginosa* Dahlbom, 1845. Hym. Europaea, v. 1, p. 138. ♂ ♀.

*Larrada Dahlbomi* Cresson, 1865. Ent. Soc. Phila. Proc. 4: 138. ♀. Provisional name.

*mescalero* Pate. Tex.; Mexico (Durango, Nuevo Leon, Hidalgo).

\**muesebecki* Krombein. Fla., ? Tex.

*Motes muesebecki* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 15. ♂ ♀.

*muspa* Pate. A subsp. of *vinulenta* (Cresson).

*vinulenta muspa* Pate, changed status. ? Tex. Typical *vinulenta* (Cresson) is Cuban.

*Motes (Notogonius) muspa* Pate. Reduced to subsp. rank (*teste* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 14).

**PISON subgenus PISON Jurine, p. 954**

*laeve* Smith. Change ♀ to "♀" = ♂ in orig. cit.

**\*PISON subgenus PARACERAMIUS Radoszkowski**

*Paraceramius* Radoszkowski, 1887. Soc. Ent. Rossica Horae 21: 432.

Type: *Paraceramius Koreensis* Radoszkowski. By monotypy.

Insert after *Pison* subg. *Pison*, p. 954.



\***koreense** (Radoszkowski). Adventive in U. S., Va. (McLean), Ill. (Palisades Pk.); Korea, China, Japan. Builds fragile clay cells side by side in sheltered situations.

**Paraceramius Koreensis** Radoszkowski, 1887. Soc. Ent. Rossica Horae 21: 433, figs. 1-3. ♀.

**TRYPOXYLON subgenus TRYPOXYLON Latreille, pp. 955-956**

**adelphiae** Sandhouse. W. Va., N. C., Fla. Prey: immature *Araneus* (?) sp.

**backi** Sandhouse. W. Va. Prey: *Tennesseelum formicum* Emerton.

**pennsylvanicum** Saussure. Fla.

**TRYPOXYLON subgenus TRYPARGILUM Richards, pp. 956-957**

**rubro-cinctum** Packard. Prey: *Theridion murarium* Em., *T. lyra* Hentz, *T. alabamense* Gertsch and Archer.

Biology: Krombein, 1954. Brooklyn Ent. Soc. Bul. 49: 5.

**striatum** Provancher. Nests in wood borings. Prey: immature *Neoscona minima* Camb., adult *Anyphaena pectorosa* Koch.

Biology: Krombein, 1956. Ent. Soc. Wash. Proc. 58: 155-156.

**DIODONTUS subgenus DIODONTUS Curtis, p. 958**

**atratus parenosus** Pate. Prey: *Drepanaphis acerifoliae* (Thos.). Nesting in beetle borings.

Biology: Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 15-16.

**PSEN subgenus PSEN Latreille, p. 959**

**monticola** (Packard). W. Va.

**PSEN subgenus PSENEO Malloch, p. 959**

**kohlii kohlii** Fox. W. Va.

**MIMESA subgenus MIMESA Shuckard, pp. 960-961**

**ezra** (Pate). Wash., Wis.

**MIMESA subgenus MIMUMESA Malloch, p. 961**

**clypeata** (Fox). Wash.

**johnsoni** Viereck. W. Va.

**Genus PLUTO Pate, p. 962**

**arenivagus** Krombein. Fla.

**littoralis** (Malloch.) Fla.

**Genus PULVERRO Pate, pp. 964-965**

**constrictus** (Provancher). Delete ? in front of sp. heading. Change v. 12 to v. 22 in orig. cit. of *constrictus*.

**Pulverro serrano** Pate, n. syn. (*teste* K. V. Krombein who has examined type of *constrictus* Provancher).

? **laevis** (Provancher). Change v. 12 to v. 22 in orig. cit.

**serrano** Pate. Syn. of *constrictus* (Provancher).

**PEMPHREDON subgenus PEMPHREDON Latreille, pp. 965-966**

**concolor** Say.

**Pemphredon (Cemonus) provancheri** Dalla Torre (syn. by Krombein, 1955. Ent. News 66: 80).

**montanus** Dahlbom. Calif., N. Mex., Colo., W. Va., Maine.

**virginiana** Rohwer. W. Va., Wis. Prey: *Cinara* sp.

**PEMPHREDON subgenus CEMONUS Panzer, p. 966**

**bipartior** Fox. W. Va.

*provancheri* Dalla Torre. Syn. of *Pemphredon* (*Pemphredon*) *concolor* Say.

**STIGMUS subgenus STIGMUS Panzer, pp. 966-967**

*americanus* Packard. W. Va. Prey: *Drepanaphis acerifoliae* (Thos.), *Myzocallis* sp., *Chaitophorus* (?) sp., *Rhopalosiphum* sp., *Aphis* (?) or *Anuraphis* (?) sp. Nesting in beetle borings.

Biology: Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 16.

*aphidiperda* Rohwer. Va.

*fraternus fraternus* Say. W. Va.

*fulvipes* Fox. Nebr., Iowa, N. Mex., Tex., Va., D. C.

Taxonomy: Krombein, 1952. Amer. Ent. Soc. Trans. 78: 94.

*inordinatus inordinatus* Fox. Wash.

*Stigmus reticulatus* Mickel, n. syn. (*teste* K. V. Krombein, based on exam. of types).

*inordinatus universitatis* Rohwer. W. Va.

*reticulatus* Mickel. Syn. of *inordinatus inordinatus* Fox.

**Genus PASSALOEUCUS Shuckard, pp. 967-968**

*annulatus* (Say). Prey: *Drepanaphis acerifoliae* (Thos.)

*mandibularis* (Cresson). Nesting in abandoned beetle borings in wood. Prey: *Macrosiphum* sp.

Biology: Krombein, 1956. Brooklyn Ent. Soc. Bul. 51: 42-43.

**Genus SPILOMENA Shuckard, pp. 968-969**

\**ampliceps* Krombein. W. Va. (Lost River St. Pk.)

*Spilomena ampliceps* Krombein, 1952. Ent. Soc. Wash. Proc. 54: 178, figs. 1-3. ♂ ♀.

*pusilla* (Say). Conn., N. Y., Va., W. Va. Prey: Immature and mature Thysanoptera.

Taxonomy: Krombein, 1952. Ent. Soc. Wash. Proc. 54: 181, figs. 4-6.

Biology: Krombein, 1956. Ent. Soc. Wash. Proc. 58: 155.

**AMMOPLANUS subgenus AMMOPLANUS Giraud, p. 969**

Add "Preocc." after original citation of *Ammoplanus* subg. *Ceballosia* Giner.

*unami* Pate. W. Va. (Lost River St. Pk.)

Taxonomy: Krombein, 1956. Ent. Soc. Wash. Proc. 58: 159, figs. 2, 2a. ♂.

**Subfamily SPHECINAE**

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 131-153, 73 figs. (larvae).

**Tribe CHLORIONINI**

(= Tribe SPHECINI of Catalog)

**Genus CHLORION Latreille**

(= *Sphex* of Catalog, pp. 971-974)

Change endings of specific names to neuter wherever applicable.

**CHLORION subgenus AMMOBIA Billberg**

(= *Sphex* subg. *Sphex* of Catalog, pp. 971-972)

*habenum* (Say). Prey: Nymphal Tettigoniidae.

Biology: Strandtmann, 1953. Kans. Ent. Soc. Jour. 26: 51-52.

*ichneumoneum ichneumoneum* (Linnaeus).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 139, figs. 1-8 (larva).

**pensylvanicum** (Linnaeus).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 140, figs. 9-11 (larva).

**singulare** (Smith). Calif. (Colusa Co.) Prey: *Conocephalus fasciatus* (DeG.).

Biology: Krombein and Evans, 1954. Ent. Soc. Wash. Proc. 56: 233-234.

**CHLORION subgenus ISODONTIA Patton, pp. 972-973****auripes** Fernald.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 144, figs. 31, 32 (larva).

**aztecum** (Saussure), changed status.

*Sphex (Isodontia) aztecus aztecus* Saussure. Raised to sp. rank (*teste* Krombein, 1953. Wasmann Jour. Biol. 10: 332).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 143, figs. 29, 30 (larva).

**aztecum cinereum** Fernald. Raised to sp. rank.**cinereum** Fernald, changed status. Atlantic and Gulf Coast States, Va. to Tex.

*Sphex (Isodontia) aztecus cinereus* (Fernald). Raised to sp. rank (*teste* Krombein, 1953. Wasmann Jour. Biol. 10: 332).

**elegans** (Smith). Utah.**exornatum** (Fernald). Fla.**harrisi** Fernald.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 143, figs. 23-28 (larva).

**CHLORION subgenus PRIONONYX Dahlbom, p. 973****atratum** (Lepeletier).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 142, figs. 15-20 (larva).

**pubidorsum** (Costa). In orig. cit. of *Priononyx canadensis* Provancher change 1889 to 1887.**striatum** (Smith). Calif.**thomae** (Fabricius).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 142, figs. 21, 22 (larva).

**CHLORION subgenus PALMODES Kohl, p. 974****daggyi** (Murray). Prey: *Atlanticus pachymerus* (Burm.), *Dissosteira carolina* (L.).

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 281-282.—Krombein, 1955. Ent. Soc. Wash. Proc. 57: 150-151.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 141, figs. 12-14 (larva).

**rufiventris opuntiae** (Rohwer). Change p. 257 to p. 557 in orig. cit.**CHLORION subgenus CHLORION Latreille, p. 974****aerarium** Patton. Prey: *Anurogryllus muticus* (DeG.), *Acheta assimilis* F.**Tribe SPHECINI**

(= Tribe AMMOPHILINI of Catalog)

**Genus SPHEX Linnaeus**

(= *Ammophila* Kirby, pp. 974-977)

Change specific names to masculine endings wherever applicable.



**harti** Fernald.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 146, figs. 57-59 (larva).

**junceus** (Cresson).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 147, figs. 60-62 (larva).

**procerus** (Dahlbom). Prey: *Heterocampa astarte* Dblday., *Nadata gibbosa* (Abbot), *Datana* sp., sphingid larvae.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 283-286.—Bohart and Knowlton, 1953. Ent. Soc. Wash. Proc. 55: 100-101.—Krombein, 1953. Ent. Soc. Wash. Proc. 55: 118.—Krombein, 1955. Ent. Soc. Wash. Proc. 57: 151-152.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 145, figs. 39-46 (larva).

**urnarius urnarius** (Dahlbom).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 146, figs. 47-49 (larva).

**Genus PODALONIA Spinola, pp. 977-978****\*argentipilis** (Provancher), n. comb. Ariz., Calif.

*Pelopoeus argentipilis* Provancher, 1887. Addit. Corr. Faune Ent. Canada Hym., p. 256. ♀.

*Podalonia morrisoni* (Cameron), n. syn. (teste K. V. Krombein who has examined type of *argentipilis*).

**clypeata** Murray.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 144, figs. 33-38 (larva).

**morrisoni** (Cameron). Syn. of *\*argentipilis* (Provancher).**Genus SCELIPHRON Klug, pp. 978-979****caementarium** (Drury).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 147, figs. 50-56 (larva).

**Genus CHALYBION Dahlbom, p. 979****californicum** (Saussure).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 149, figs. 67, 68 (larva).

**Genus PODIUM Fabricius, pp. 979-980****carolina** Rohwer. Fla.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 81: 150, figs. 69-73 (larva).

**Subfamily NYSSONINAE**

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 35-66, 13 pls. (larvae).

**Genus ALYSSON Panzer, p. 981****melleus** Say.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 41, figs. 1-7 (larva).

**NYSSON subgenus NYSSON Latreille, pp. 982-983****daecke**i Viereck. Host: *Gorytes canaliculatus* Pack.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 42, figs. 8-12 (larva).

**melanopus** Pate. Transf. to Nysson subg. *Epinysson*, p. 984.**simplicicornis** Fox. W. Va.**subtilis** Fox. W. Va.

**NYSSON subgenus EPINYSSON Pate, pp. 983-984****hoplisivora** Rohwer. Va., Fla.**melanopus** Pate. Que., N. Y., N. J. Transf. from Nysson subg. Nysson, p. 983 (*teste* K. V. Krombein who has examined type of *nigripes* Provancher). Change sex given in orig. cit. of *nigripes* from ♂ to "♂" = ♀.**Genus ZANYSSON Rohwer, p. 985****fuscipes** (Cresson). N. C.**Genus OCHLEROPTERA Holmberg, p. 986****bipunctata** (Say).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 47, figs. 23-29 (larva).

**AMMATOMUS subgenus TANYOPRYMNUS Cameron, pp. 986-987****moneduloides** (Packard). N. C.**SPHECIUS subgenus SPHECIUS Dahlbom, p. 987****convallis** Patton. Prey: *Diceroprocta apache* (Davis).**grandis** (Say). Delete *nom. nud.* after orig. cit. of *Stizus grandis* Say, 1823. Delete entire entry for *Stizus grandis* Say, 1824.**speciosus** (Drury).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 46, figs. 30-36 (larva).

**Genus DIENOPLUS Fox, p. 988****\*citipes** Krombein. Fla., (Orlando, Arcadia). On flat sandy areas.**Dienoplus citipes** Krombein, 1954. Amer. Ent. Soc. Trans. 80: 20, figs. 9, 11, 13. ♂ ♀.**gyponae** (Williams). Transf. from Gorytini of Uncertain Generic Position, p. 993.**Harpactus gyponae** Williams (transf. by Krombein, 1954. Amer. Ent. Soc. Trans. 80: 20, figs. 10, 12).**HARPACTOSTIGMA subgenus ARCESILAS Pate, p. 989****laminiferum** (Fox). Calif.**Psammaecius rufulicornis** (Maidl and Klima), n. syn. Transf. from *Psammaecius*, p. 991 (*teste* K. V. Krombein, who has examined the type of *Gorytes ruficornis* Provancher).**PSAMMAECIUS subgenus HOPLISOIDES Gribodo**(= *Psammaecius* Lepeletier, pp. 989-991)None of our North American species is closely related to the genotype of *Psammaecius*. Pending a generic reclassification of the Gorytini on a global basis, it seems advisable to adopt one of de Beaumont's suggestions (Mitt. Schweiz. Ent. Ges. 25: 214, 1936) and recognize *Hoplisoides* as a discrete subgenus.**armatus** (Provancher).**Psammaecius pergandei** (Handlirsch) of Catalog, n. syn. (*teste* K. V. Krombein who has examined the type of *armatus* (Provancher)).**costalis** (Cresson). N. C., Wis. Prey: *Ceresa palmeri* Van D.**denticulatus** (Packard). Wis.**hamatus** (Handlirsch). Delete *maculatus* (Provancher) from syn.**maculatus** (Provancher). Calif. (Los Angeles).**Psammaecius hamatus** (Handlirsch) of Catalog, in part. *P. maculatus* is a valid sp., not a syn. of *hamatus* (*teste* K. V. Krombein who has examined the type of *maculatus* (Provancher)).

- nebulosus** (Packard). Prey: Nymph of *Ceresa palmeri* Van D. (?).  
 Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 286-287.  
 Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 45, figs. 43, 44 (larva).
- pergandei** (Handlirsch). Syn. of **armatus** (Provancher).
- ruficornis** Maidl and Klima. Transf. to **Harpactostigma** subg. **Arcesilas**, p. 989, as a syn. of **laminiferum** (Fox).
- tricolor** (Cresson). Fla. Prey: *Parabolocratus brunneus* Ball. Parasite: *Nysson bellus* Cr.  
**Gorytes (Gorytes) rufocaudatus** (Mickel), n. syn. (based on type exam. by K. V. Krombein).  
 Biology: Evans, Lin and Yoshimoto, 1954. Ent. News 65: 5-11.

### **GORYTES subgenus GORYTES Latreille, pp. 991-992**

- asperatus** Fox.  
**Gorytes (Gorytes) corrugis** (Mickel), n. syn. (based on type exam. by K. V. Krombein).  
 Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 44, figs. 21, 22 (larva).
- atricornis** Packard.  
**Gorytes (Gorytes) elegantulus** (H. S. Smith), n. syn. (based on type exam. by K. V. Krombein).
- canaliculatus** Packard.  
 Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 43, figs. 13-20 (larva).
- corrugis** (Mickel). Syn. of **asperatus** Fox.
- dorothyae** dorothyae Krombein, changed status.  
**Gorytes (Gorytes) dorothyae** Krombein. Reduced to subsp. rank (*teste* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 23).  
 Taxonomy: Krombein, 1953. Wasmann Jour. Biol. 10: 335. ♀.
- \***dorothyae russeolus** Krombein. Fla.  
**Gorytes (Gorytes) dorothyae russeolus** Krombein, 1954. Amer. Ent. Soc. Trans. 80: 23. ♂ ♀.
- elegantulus** (H. S. Smith). Syn. of **atricornis** Packard.
- gyponacinus** Rohwer. Syn. of **simillimus** Smith.
- rufocaudatus** (Mickel). Transf. to **Psammaecius**, p. 991, as a syn. of **tricolor** (Cresson).
- simillimus** Smith. W. Va.  
**Gorytes (Gorytes) gyponacinus** Rohwer, n. syn. (based on type exam. by K. V. Krombein).  
 Biology: Krombein, 1952. Amer. Ent. Soc. Trans. 78: 95.

### **GORYTES subgenus PSEUDOPLISUS Ashmead, pp. 992-993**

- apicalis** Smith. Ga.  
**Gorytes (Pseudoplisus) phaleratus** Say of Catalog, in part. *G. apicalis* is a valid sp., not a syn. of **phaleratus** (*teste* I. H. H. Yarrow who has compared specimens of **phaleratus** with the type of **apicalis**).
- Gorytes (Pseudoplisus) propinquus** Cresson of Catalog, n. syn. (*teste* I. H. H. Yarrow who compared specimens of **propinquus** with the type of **apicalis**).
- bipartitus** Handlirsch. Syn. of **divisus** Smith.
- divisus** Smith.  
**Gorytes (Pseudoplisus) bipartitus** Handlirsch of Catalog, n. syn. (*teste* I. H. H. Yarrow who compared specimens of **bipartitus** with the type of **divisus**).



*floridanus* Fox. Md., Va., La.

*phaleratus* Say. Delete *apicalis* Smith, a valid sp., from syn.

*propinquus* Cresson. Syn. of *apicalis* Smith.

**\*Genus XENOSPHEX Williams**

*Xenosphex* Williams, 1954. Wasmann Jour. Biol. 12: 97.

Type: *Xenosphex xerophila* Williams. By monotypy.

Place in Gorytini after subgenus *Pseudoplisus*, p. 993.

\**timberlakei* Williams. Calif. (Riverside Co.).

*Xenosphex timberlakei* Williams, 1955. Wasmann Jour. Biol. 13: 313. ♀.

\**xerophila* Williams. Calif. (Riverside Co.). On flowers of *Hugelia*.

*Xenosphex xerophila* Williams, 1954. Wasmann Jour. Biol. 12: 99, figs. 1-6. ♂ (♀ misdet.).

Taxonomy: Williams, 1955. Wasmann Jour. Biol. 13: 313. ♀.

Gorytini of Uncertain Generic Position, p. 993

*gyponae* Williams. Transf. to *Dienoplus*, p. 988.

**Genus STIZOÏDES Guérin, p. 994**

*unicinctus* (Say). In orig. cit. of *unicinctus* Say, 1823, change sp. name to *renicinctus* and delete "Nom. nud." After cit. of *unicinctus* Say, 1824, add "Emend."

**Genus BEMBECINUS Costa, pp. 994-995**

*neglectus* (Cresson). Prey: *Gyponana octolineata* (Say) and *Texananus excultus* (Uhl.) (rarely *Xerophloea majesta* Laws., *Scolops* sp.).

Biology: Evans, 1955. Behaviour 7: 287-295, 4 figs.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 47, figs. 37-42 (larva).

**Genus STENIOLIA Say, p. 995**

*elegans* Parker.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 52, figs. 66-71 (larva).

*nigripes* Parker. Prey: *Aphoebantus* spp.

Biology: Gillaspay, 1951. Pan-Pacific Ent. 27: 167-168.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 53 (larva).

**Genus STICTIELLA Parker, pp. 995-996**

*pulla* (Handlirsch).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 52, figs. 63-65 (larva).

*serrata* (Handlirsch).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 51, figs. 59-62 (larva).

**Genus BICYRTES Lepelletier, pp. 996-997**

*fodiens* (Handlirsch).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 50, figs. 53-55 (larva).

*quadrifasciata* (Say). Prey: *Nezara viridula* (L.), *Euschistus tristigmus* (Say), *Thyanta custator* (F.), *Brochymena carolinensis* (Westw.), *Dendrocoris humeralis* (Uhl.), *Archimerus alternatus* (Say), *Leptoglossus oppositus* (Say).

Biology: Krombein, 1955. Ent. Soc. Wash. Proc. 57: 152-157, 4 figs.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 49, figs. 45-52 (larva).

*ventralis* (Say).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 50, figs. 56-58 (larva).

Genus **MICROBEMBEX** Patton, pp. 997-998

*aurata* Parker. Syn. of *nigrifrons* (Provancher).

*monodonta* (Say). Delete *nigrifrons* (Provancher), a valid sp., from syn.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 55, figs. 79-84 (larva).

*nigrifrons* (Provancher).

*Microbembex monodonta* (Say) of Catalog, in part. *M. nigrifrons* is a valid sp., not a syn. of *monodonta* (teste K. V. Krombein who has examined the type of *nigrifrons*). Change *Bembex* to *Monedula* in orig. cit. of *nigrifrons*.

*Microbembex aurata* Parker, n. syn. (teste K. V. Krombein).

Genus **STICTIA** Illiger

(= *Bembix* of Catalog, p. 998)

Delete references to *Bembix* Fabricius and *Bembex* Fabricius in the generic synonymy.

*carolina* (Fabricius).

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 53, figs. 72-78 (larva).

\**vivida* (Handlirsch). Tex. (Port Isabel); Mexico.

*Monedula vivida* Handlirsch, 1890. Akad. der Wiss. Wien, Math.-Nat. Kl. Sitzber. 99: 101. ♀.

Genus **BEMBIX** Fabricius

(= *Epibembex* Minkiewicz, pp. 998-1000)

Delete first entry in the generic synonymy. Add the following citations above the citation of *Epibembex* Minkiewicz.

*Bembix* Fabricius, 1775. Systema Ent., Char. Gen., p. [11]. No included spp.

Type: *Bembix rostrata* Fabricius. Desig. by Latreille, 1810 (one of the three spp. included in *Bembyx* (!) by Fabricius, *op cit.*, p. 361).

*Bembyx* (!) Fabricius, 1775. Systema Ent., p. 361. *Lapsus* for *Bembix*.

*Bembex* (!) Fabricius, 1777. Gen. Ins., p. 122. *Lapsus* for *Bembix*.

Remove parentheses from names of all authors in specific headings. Delete that part of sentence on prey preferences stating, "but a few prey on immature Hemiptera."

*belfragei* Cresson.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 61, figs. 98-101 (larva).

*cinerea* Handlirsch. N. Y. Prey: a wide variety of Diptera.

Biology: Krombein and Evans, 1955. Ent. Soc. Wash. Proc. 57: 233-234.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 59, fig. 109 (larva).

*comata* Parker.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 59 (larva).

*hinei* Parker. Nests in hard-packed sand on beach front. Prey: Tabanidae.

Biology: Strandtmann, 1953. Kans. Ent. Soc. Jour. 26: 48-49.

*occidentalis beutenmülleri* Fox.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 58, figs. 85-87 (larva).

*pruinosa* Fox.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 57, figs. 88-93 (larva).

*sayi* Cresson.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 60, figs. 94-97 (larva).

**spinolae** Lepeletier.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 58, fig. 108 (larva).

**texana** Cresson. N. C. Prey: a wide variety of Diptera. Delete reference to this species using immature Hemiptera as prey.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 62, figs. 105-107 (larva).

**troglodytes** Handlirsch.

Taxonomy: Evans and Lin, 1956. Amer. Ent. Soc. Trans. 82: 61, figs. 102-104 (larva).

**Genus PHILANTHUS Fabricius, pp. 1000-1003****flavifrons** Cresson. Prey: *Apis mellifera* L.

\***Liris magnifica** Provancher, 1895. Nat. Canad. 22: 130. ♂. N. syn. (teste K. V. Krombein who has examined the type).

Biology: Bohart, 1954. Ent. Soc. Wash. Proc. 56: 26-27.

\***magnifica** (Provancher). Syn. of **flavifrons** Cresson.\***rugosa** (Provancher). Syn. of **ventilabris** Fabricius.**sanbornii** Cresson. Prey: *Lasioglossum forbesii* (Robt.), *Agapostemon radiatus* (Say), *Apis mellifera* L.

Biology: Evans, 1955. Brooklyn Ent. Soc. Bul. 50: 47.

**ventilabris** Fabricius.

\***Liris rugosa** Provancher, 1895. Nat. Canad. 22: 130. ♂. N. syn. (teste K. V. Krombein who has examined the type).

**Genus CERCERIS Latreille, pp. 1004-1011****architis** Mickel. Prey: *Curculio rectus* (Say).**atramontensis** Banks. Prey: *Conotrachelus posticatus* Boh., *C. naso* Lec. Biology: Krombein, 1956. Brooklyn Ent. Soc. Bul. 51: 43.**bicornuta bicornuta** Guérin. Prey: *Calendra venata vestita* (Chit.), *C. cariosa* (Oliv.).

Biology: Krombein, 1953. Ent. Soc. Wash. Proc. 55: 118-119.

**californica** Cresson. Prey: Many spp. of Buprestidae, including *Acmaeodera*, *Agrius*, *Anthaxia*, *Chrysobothris*.

Biology: Linsley and MacSwain, 1956. Ent. Soc. Amer. Ann. 49: 71-84, 3 figs.

**clypeata** Dahlbom. Prey: *Chalepus dorsalis* Thunb.**robertsonii** Fox. N. C. Prey: *Rhabdopterus picipes* (Oliv.), *Cryptocephalus notatus* F., *Pachybrachis dilatatus* Suffr.

Biology: Krombein, 1953. Wasmann Jour. Biol. 10: 288-294.—Krombein, 1953. Ent. Soc. Wash. Proc. 55: 119-121.

**Genus EUCERCERIS Cresson, pp. 1011-1013****flavocincta** Cresson. Prey: *Dyslobus* sp.

Biology: Bohart and Powell, 1956. Pan-Pacific Ent. 32: 143-144.

**ruficeps** Scullen. Prey: *Dysticheus rotundicollis* Van Dyke, *Sitona californicus* Fahr.

Biology: Linsley and MacSwain, 1954. Pan-Pacific Ent. 30: 11-14.

**Tribe CRABRONINI**

Taxonomy: J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., 371 pp., 40 figs., 84 maps. These, Liege (catalog of spp. of world).

**Genus ANACRABRO Packard, p. 1013****ocellatus ocellatus** Packard.



*Thyreopus rugoso-punctatus* Provancher of Catalog, n. syn. Transf. from Crabronini of Unknown Generic Position, p. 1029 (*teste* K. V. Krombein who has examined the type).

**LINDENIUS subgenus TRACHELOSIMUS Morawitz, p. 1015**

\**dugesianus* Leclercq. Ariz.; Mexico (Guanajuato).

*Lindenius (Trachelosimus) dugesianus* Leclercq, 1950. Inst. Roy. Sci. Nat. Belg. Bul. 26, no. 6, p. 1. ♀.

**CRABRO subgenus PARANTHYREUS Ashmead, pp. 1015-1016**

*aequalis* Fox. N. C., Fla.

*cingulatus* (Packard). Wis.

**CRABRO subgenus SYNANTHYREOPUS Ashmead, pp. 1016-1017**

*henrici* Krombein. N. Mex.

**CRABRO subgenus CRABRO Fabricius, pp. 1017-1018**

*juniatæ* Krombein. W. Va. Prey: *Hylemya cilicrura* (Rond.).

*pallidus* Fox. Oreg.

**EUPLILIS subgenus CORYNOPUS Lepeletier and Brullé, p. 1019**

*arapaho* Pate. Utah.

*coarctatus modestus* (Rohwer), changed status. Replaces *coarctatus* (Scopoli) of Catalog (*teste* Tsuneki, 1955. Annot. Zool. Japon. 28: 126). Delete Holarctic and east of Rockies from range. Delete citations for *coarctata* Scopoli and *tibialis* Fabricius. Typical *coarctatus* (Scopoli) is Palaearctic.

**CROSSOCERUS subgenus YUCHIHA Pate, p. 1020**

*xanthochilos* Pate.

Taxonomy: Krombein, 1952. Amer. Ent. Soc. Trans. 78: 96. ♂.

**CROSSOCERUS subgenus CROSSOCERUS Lepeletier and Brullé, pp. 1020-1021**

*incavus* (Fox). Wis.

\**planifemur* Krombein. W. Va. (Lost River St. Pk.). Nesting in tunnels in logs.

*Crossocerus (Crossocerus) planifemur* Krombein, 1952. Ent. Soc. Wash. Proc. 54: 181. ♀ ♂.

*similis* (Fox). W. Va., Mich.

**CROSSOCERUS subgenus EPICROSSOCERUS Ashmead, p. 1021**

An undescribed species from Utah nests in twigs of *Sambucus* and provisions with chalcidids.

**CROSSOCERUS subgenus BLEPHARIPUS Lepeletier and Brullé, pp. 1021-1023**

*ambiguus* (Dahlbom). W. Va., Wis., Wash.

*cinctipes* (Provancher). Wis.

*Crabro niger* Provancher, n. syn. *Niger* is a syn. of *cinctipes* not of *harringtonii* (Fox) (*teste* K. V. Krombein who has examined the type of *niger*).

*Crabro servus* Dalla Torre, n. syn.

*harringtonii* (Fox). Delete *niger* Provancher and *servus* Dalla Torre from syn. and place them in syn. of *cinctipes* (Provancher).

Taxonomy: Krombein, 1952. Ent. Soc. Wash. Proc. 54: 184. ♂.

**CROSSOCERUS subgenus NOTHOCRABRO Pate, p. 1023**

*nitidiventris* (Fox).

Taxonomy: Krombein, 1953. Wasmann Jour. Biol. 10: 338.

**ECTEMNIUS subgenus CLYTOCHRYsus Morawitz, p. 1024**

*comptus* (Lepeletier and Brullé). Syn. of *lapidarius* (Panzer).

*lapidarius* (Panzer). Replaces *comptus* (Lepeletier and Brullé) (*teste* Leclercq, 1954. Monogr. syst., phylogen., zoogeogr. Hym. Crabron., p. 285). Delete ? before cit. of *Crabro lapidarius* Panzer.

**ECTEMNIUS subgenus METACRABRO Ashmead, p. 1025**

*4-cinctus* (Fabricius). Delete *Crabro frigidus* Smith from syn. and transf. to subg. *Lophocrabro*, p. 1025 as a syn. of *singularis* (Smith).

**ECTEMNIUS subgenus LOPHOCRABRO Rohwer, p. 1025**

*singularis* (Smith).

? *Crabro maculatus* Fabricius. Transf. from Crabronini of Unknown Generic Position, p. 1029 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen., et zoogeogr. des Hym. Crabron., p. 290. These, Liege.)

*Crabro frigidus* Smith. A syn. of *singularis* (Smith), not of *Ectemnius* (*Metacrabro*) *4-cinctus* (Fabricius) (*teste* L. Leclercq, loc. cit. *supra*).

**ECTEMNIUS subgenus HYPOCRABRO Ashmead, pp. 1025-1027**

*centralis* (Cameron). Transf. to *Ectemnius* subg. *Apoctemnius*, which follows.

*excavatus banksi* (Rohwer). Transf. to *Ectemnius* subg. *Apoctemnius*, which follows.

*excavatus excavatus* (Fox). Transf. to *Ectemnius* subg. *Apoctemnius*, which follows.

*scaber* (Lepeletier and Brullé). Transf. to *Ectemnius* subg. *Apoctemnius*, which follows.

*texanus ais* Pate. Transf. to *Ectemnius* subg. *Apoctemnius*, which follows.

*texanus texanus* (Cresson). Transf. to *Ectemnius* subg. *Apoctemnius*, which follows.

**\*ECTEMNIUS subgenus APOCTEMNIUS Leclercq, p. 1027**

*Ectemnius* subg. *Apoctemnius* J. Leclercq, 1950. Rev. Franc. d'Ent. 17: 200.

Type: *Ectemnius* (*Apoctemnius*) *domingensis* Leclercq. Orig. desig.

Place after *Ectemnius* subgenus *Hypocrabro* Ashmead, p. 1027.

*centralis* (Cameron). Transf. from *Ectemnius* subg. *Hypocrabro*, p. 1025 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., p. 276. These Liege).

*excavatus banksi* (Rohwer). Transf. from *Ectemnius* subg. *Hypocrabro*, p. 1026 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., p. 275. These, Liege).

*excavatus excavatus* (Fox). Transf. from *Ectemnius* subg. *Hypocrabro*, p. 1026 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., p. 275. These, Liege).

\**scaber rufescens* Krombein. Cent. and south Fla.

*Ectemnius* (*Hypocrabro*) *scaber rufescens* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 24. ♂ ♀.

*scaber scaber* (Lepeletier and Brullé), changed status. Intergrading with *scaber rufescens* Krombein in north. Fla., southeast. Ga., and southeast. La. Transf. from *Ectemnius* subg. *Hypocrabro*, p. 1027 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., p. 275. These, Liege).

*Ectemnius* (*Hypocrabro*) *scaber* (Lepeletier and Brullé). Reduced to subsp. rank (*teste* Krombein, 1954. Amer. Ent. Soc. Trans. 80: 24).

**texasus** ais Pate. Transf. from **Ectemnius** subg. **Hypocrabro**, p. 1027 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., p. 275. These, Liege.).

**texasus texanus** (Cresson). Ariz. Transf. from **Ectemnius** subg. **Hypocrabro**, p. 1027, (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym., Crabron. p. 275. These, Liege.).

**LESTICA** subgenus **SOLENIUS** Lepeletier and Brullé, pp. 1028-1029

**cinctella** (Fox). Calif.

Taxonomy: J. Leclercq, 1951. Soc. Ent. Belg. Bul. et Ann. 87: 171. ♂.

**rufipes** (Lepeletier and Brullé). Transf. from Crabronini of Unknown Generic Position, p. 1029 (*teste* J. Leclercq, 1954. Monogr. syst., phylogen. et zoogeogr. des Hym. Crabron., p. 294. These, Liege.).

Crabronini of Unknown Generic Position, p. 1029

**maculatus** Fabricius. Transf. to **Ectemnius** subg. **Lophocrabro**, p. 1025 as a questionable syn. of **singularis** (Smith).

**rufipes** Lepeletier and Brullé. Transf. to **Lestica** subg. **Solenius**, p. 1028.

**rugoso-punctatus** Provancher. Transf. to **Anacrabro**, p. 1013, as a syn. of **o. ocellatus** Packard.

Nomina Nuda in Crabronini

Insert after Crabronini of Unknown Generic Position, p. 1029.

\***glauconotatus** Harris. Mass.

**Crabro glauconotatus** Harris, 1835. In Hitchcock, Rpt. Geol., Mineral., Bot., Zool., Mass., p. 588.

**Genus OXYBELUS** Latreille, pp. 1030-1034

Taxonomy: Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 157-165 (annotated synonymical list of N. A. spp.).

The generic name is neuter, and all specific names requiring agreement in gender should be changed.

**abdominale** Baker. U. S. west of 100th Meridian, north to Idaho, Nebr.

**Oxybelus calligaster**. (Viereck) (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 158).

**acutus** Baker. Syn. of **subulatum** Robertson.

**albomaculata** (Mickel). Syn. of **taenigaster** Viereck.

**albosignatus** H. S. Smith. Syn. of **subulatum** Robertson.

**americana** (Robertson). Syn. of **emarginatum** Say.

**apicatus** H. S. Smith. Syn. of **robertsonii** Baker.

**argentarius** Mickel. Syn. of **exclamans** Viereck.

\***argenteopilosum** Cameron. West. N. A. from Colo. and Oreg. south to Mexico (Tehuantepec).

**Oxybelus argenteopilosus** Cameron, 1891. Biol. Cent.—Amer., Hym., v. 2, p. 158, pl. 9, figs. 23, 23a. ♀.

\***argypheum** Bohart and Schlinger. Calif., Ariz., south. Colo.

**Oxybelus argypheum** Bohart and Schlinger, 1956. Biol. Soc. Wash. Proc. 69: 38. ♀.

**bipunctatum** Olivier. Change sp. ending from **us** to **um**. Prey: *Hyalomyodes triangulifera* (Lw.), *Leucostoma aterrima* (Vill.).

\***californicum** Bohart and Schlinger. West. U. S. and north. Mexico.

**Oxybelus californicum** Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 147. ♂ ♀.

**calligaster** (Viereck). Syn. of **abdominale** Baker.



- \**canalis* Bohart and Schlinger. Southwest. U. S., north to Utah; north. Mexico.  
*Oxybelus canalis* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 149.  
 ♂ ♀.
- carolinus* Banks. Syn. of *packardii* Robertson.
- cochise* Pate. Baja Calif., Mexico.
- cockerelli* Baker. Syn. of *subcornutum* Cockerell.
- coloradensis* Baker. Syn. of *parvum* Cresson.
- cornutum* Robertson. U. S. west of 100° W., Montana south to Mexico (Guadalajara).  
*Oxybelus quadricolor* Cockerell and Baker (syn. by Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 70).  
*Oxybelus polygoni* Rohwer (syn. by Krombein, *loc. cit. supra*).
- \**crandalli* Bohart and Schlinger. Ariz., Ark.  
*Oxybelus crandalli* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 154. ♀.
- cressonii* Robertson. Centr. U. S., Utah, and Tex., east to Va., north to Mich.
- decorosum* (Mickel). U. S. east of 100° W., Vt. and Minn., south to Fla. Change sp. ending from *a* to *um*.
- delicatus* Mickel. Syn. of *sericeum sericeum* Robertson.
- denverensis* Rohwer. Syn. of *subcornutum* Cockerell.
- dilutus* Baker. Syn. of *emarginatum* Say.
- emarginatum* Say. U. S. and south. Canada, south nearly to Mexico City. Delete *parvus* Cresson, a valid sp. from syn.—in orig. cit. of *parvus* change ♀ to “♀” = ♂.  
*Oxybelus dilutus* Baker (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 160).  
*Oxybelus trifidus* Cockerell and Baker (syn. by Bohart and Schlinger, *loc. cit. supra*).  
*Notoglossa americana* Robertson (syn. by Bohart and Schlinger, *loc. cit. supra*).  
*Notoglossa pacifica* Rohwer (syn. by Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 73).  
*Notoglossa minor* Mickel (syn. by Bohart and Schlinger, *loc. cit. supra*).
- exclamans* Viereck. West. U. S., north to S. Dak., east to Fla., south to Mexico (Chihuahua).  
*Oxybelus townsendi* Rohwer and Cockerell (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 160).  
*Oxybelus argentarius* Mickel (syn. by Bohart and Schlinger, *loc. cit. supra*).  
*Oxybelus pectorosus* Mickel (syn. by Bohart and Schlinger, *loc. cit. supra*).
- \**fastigatus* Mickel. Syn. of *taenigaster* Viereck.
- floridanus* Robertson. Syn. of *laetum fulvipes* Robertson.
- fossor* Rohwer and Cockerell. U. S. west of 100° W., north to Nebr.; Baja Calif., Mexico.  
*Oxybelus umbrosus* Mickel (syn. by Pate, 1943. Pan-Pacific Ent. 19: 125).  
*Oxybelus puente* Pate (Syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 160).
- frontale* Robertson. U. S. east of Rocky Mts., Tex. north to Mich. and Pa. Change sp. ending from *is* to *e*.
- fulvipes* Robertson. A subsp. of *laetum* Say.
- glenensis* H. S. Smith. Syn. of *robertsoni* Baker.

- heterolepis* Cockerell and Baker. Syn. of *packardii* Robertson.
- heterolepis* var. *defectus* Cockerell and Baker. Syn. of *packardii* Robertson.
- \**hirsutus* Baker. Syn. of *robertsonii* Baker.
- incisura* (Mickel). Syn. of *parvum* Cresson.
- inornatum* (Robertson). Northeast. U. S., Mich. to Mass., south to N. C. Change sp. ending from **a** to **um**. Prey: *Pholeomyia indecora* (Lw.).
- intermedius* Baker. Syn. of *parvum* Cresson.
- \**krombeini* Bohart and Schlinger. Calif.  
*Oxybelus krombeini* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 149. ♂ ♀.
- laetum fulvipes* Robertson, changed status. Southeast. Coastal States north to Va.  
*Oxybelus fulvipes* Robertson. Reduced to subsp. rank (*teste* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 161).
- Oxybelus floridanus* Robertson (syn. by Bohart and Schlinger, *loc. cit. supra*).
- laetum laetum* Say, changed status. U. S. east of 100° W., Tex. to N. C., north to Mich. and Mass. Sp. ending changed from **us** to **um**.  
*Oxybelus laetus* Say. Reduced to subsp. rank (*teste* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 161).
- \**linsleyi* Bohart and Schlinger. Calif.  
*Oxybelus linsleyi* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 151. ♂ ♀.
- \**macswaini* Bohart and Schlinger. Calif.  
*Oxybelus macswaini* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 153. ♂ ♀.
- majus* Mickel. East. U. S., Tex. to N. C., north to Mich. and Va. Sp. ending changed from **or** to **us**.
- manni* Rohwer. Syn. of \**ventrale* Fox.
- minor* (Mickel). Syn. of *emarginatum* Say.
- mottensis* Mickel. Syn. of *subulatum* Robertson.
- nigrum* Robertson. Southeast. Canada and northeast. U. S., Minn. and Ill. to N. Y. Change sp. ending from **er** to **rum**. Prey: *Lonchaea polita* Say.
- pacifica* (Rohwer). Syn. of *emarginatum* Say.
- packardii* Robertson. U. S., Calif. to Fla., north to Ill., Ohio, and N. J.  
*Oxybelus Packardii* var. *texanus* Robertson (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 162).
- Oxybelus heterolepis* Cockerell and Baker (syn. by Bohart and Schlinger, *loc. cit. supra*).
- Oxybelus heterolepis* var. *defectus* Cockerell and Baker (syn. by Bohart and Schlinger, *loc. cit. supra*).
- Oxybelus unicus* Mickel (syn. by Bohart and Schlinger, *loc. cit. supra*).
- Oxybelus carolinus* Banks (syn. by Bohart and Schlinger, *loc. cit. supra*).
- packardii* var. *texanus* Robertson. Syn. of *packardii* Robertson.
- paenemarginatum* (Viereck). Change sp. ending from **us** to **um**.
- \**paracochise* Bohart and Schlinger. Ariz., Tex.; north. Mexico.  
*Oxybelus paracochise* Bohart and Schlinger, 1956. Biol. Soc. Wash. Proc. 69: 37. ♂ ♀.
- parvum* Cresson. U. S. west of 100° W., Nebr., and Utah to south. Calif. and north. Mexico.

- Oxybelus emarginatus* Say of Catalog, in part. *O. parvus* Cresson is a valid sp., not a syn. of *emarginatus* (teste K. V. Krombein, who has examined the type of the former).
- Oxybelus intermedius* Baker, (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 162).
- Oxybelus coloradensis* Baker (syn. of *intermedius* Baker, teste Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 72).
- Notoglossa incisura* Mickel (syn. of *intermedius* Baker, teste Krombein, loc. cit. supra).
- pectorosus* Mickel. Syn. of *exclamans* Viereck.
- pitanta* Pate. Southwest. U. S., Calif. and Nev. to N. Mex.
- polygoni* Rohwer. Syn. of *cornutum* Robertson.
- puente* Pate. Syn. of *fossor* Rohwer and Cockerell.
- punctatus* Baker. Syn. of *subcornutum* Cockerell.
- quadricolor* Cockerell and Baker. Syn. of *cornutum* Robertson.
- quadrinotatus* Say. A subsp. of *uniglumis* (Linnaeus).
- quadrinotatus* var. *montanus* Robertson. Syn. of *uniglumis quadrinotatum* Say.
- rejectum* Baker. Change sp. ending from *us* to *um*. Possibly an aberrant *cornutum* Robertson.
- robertsonii* Baker. Northwest. U. S., Nebr. to Oreg., south to Nev. and Calif.
- Oxybelus varicoloratus* Baker (syn. by Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 71).
- \**Oxybelus hirsutus* Baker, Ent. News 7: 157. ♀. (Syn. by Krombein, loc. cit. supra.)
- Oxybelus apicatus* H. S. Smith (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 163).
- Oxybelus glenensis* H. S. Smith (syn. by Bohart and Schlinger, loc. cit. supra).
- \**sericeum crocatum* Krombein. Miss., Ga. Nesting on sand beach. Prey: *Chaetopsis fulvifrons* (Macq.).
- Oxybelus sericeus crocatus* Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 73. ♂ ♀.
- sericeum sericeum* Robertson, changed status. U. S., south to Baja Calif., Mexico. Change sp. ending from *us* to *um*.
- Oxybelus sericeus* Robertson. Reduced to subsp. rank (teste Krombein, 1955. Brooklyn Ent. Soc. Bul. 50: 73).
- Oxybelus delicatus* Mickel (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 163).
- simile* Cresson. U. S. west of Rocky Mts. Change sp. ending from *is* to *e*.
- Oxybelus striatifrons* (Mickel) (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 164).
- sparideum* Cockerell. Southwest. U. S., Ariz. to Tex., Okla., south to Mexico (Vera Cruz). Change sp. ending from *us* to *um*.
- striatifrons* (Mickel). Syn. of *simile* Cresson.
- striatus* Baker. Syn. of *subcornutum* Cockerell.
- subcornutum* Cockerell. U. S. from Ariz. to East Coast, Mich. south to Mexico (Chihuahua).
- Oxybelus cockerelli* Baker (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 164).
- Oxybelus punctatus* Baker (syn. by Bohart and Schlinger, loc. cit. supra).
- Oxybelus striatus* Baker (syn. by Bohart and Schlinger, loc. cit. supra).
- Oxybelus denverensis* Rohwer (syn. by Bohart and Schlinger, loc. cit. supra).



- subulatum** Robertson. Northeast. U. S., Colo. to Mass. north to Canada.  
*Oxybelus acutus* Baker (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 164).  
*Oxybelus albosignatus* H. S. Smith (syn. by Bohart and Schlinger, *loc. cit. supra*).  
*Oxybelus mottensis* Mickel (syn. by Bohart and Schlinger, *loc. cit. supra*).  
 \***taenigaster** (Viereck). Cent. U. S., incl. Ariz., N. Mex., Nebr., south to Mexico (Oaxaca).  
 \**Notoglossa taenigaster* Viereck, 1906. Amer. Ent. Soc. Trans. 32: 215. ♀.  
 \**Oxybelus fastigatus* Mickel, 1916. Amer. Ent. Soc. Trans. 42: 433. ♂ ♀, (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 165).  
*Oxybelus albomaculata* (Mickel) (syn. by Bohart and Schlinger, *loc. cit. supra*).  
 \***timberlakei** Bohart and Schlinger. Calif.  
*Oxybelus timberlakei* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 150. ♂ ♀.  
**townsendi** Rohwer and Cockerell. Syn. of **exclamans** Viereck.  
**trifidus** Cockerell and Baker. Syn. of **emarginatum** Say.  
**umbrosus** Mickel. Syn. of **fossor** Rohwer and Cockerell.  
**unicus** Mickel. Syn. of **packardii** Robertson.  
**uniglumis quadrinotatum** Say, changed status. South. Canada and U. S. south into Mexico (Puebla). Change sp. ending from **us** to **um**. *O. uniglumis uniglumis* (Linnaeus) is Palaearctic.  
*Oxybelus quadrinotatus* Say. Reduced to subsp. rank (*teste* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 165).  
*Oxybelus quadrinotatus* var. **montanus** Robertson (syn. by Bohart and Schlinger, *loc. cit. supra*).  
**varicoloratus** Baker. Syn. of **robertsonii** Baker.  
 \***ventrale** Fox. Pacific Coast, Wash., south to Baja Calif.  
*Oxybelus ventralis* Fox, 1894. Calif. Acad. Sci. Proc. (2) 4: 107. ♀.  
*Oxybelus manni* Rohwer (syn. by Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 165).  
 \***xerophilum** Bohart and Schlinger. Calif., Ariz.  
*Oxybelus xerophilum* Bohart and Schlinger, 1956. Pan-Pacific Ent. 32: 154. ♂.

## Family DRYINIDAE

This family, with its component genera and species, should be transferred to the Bethyloidea to follow the family Sclerogibbidae, p. 734.

## Superfamily APOIDEA

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 987-1102, 287 figs. (larvae).—Michener, 1954. Pan-Pacific Ent. 30: 63-70 (pupae).  
 Morphology: Wille, 1956. Kans. Univ. Sci. Bul. 38: 439-499, 72 figs. (thoracic musculature).

## Family COLLETIDAE

### Genus COLLETES Latreille, pp. 1044-1049

Revision: Stephen, 1954. Kans. Univ. Sci. Bul. 36: 149-527. 87 figs., 8 maps.

**aberrans** Cockerell. Mich., west to Alta., Colo., and N. Mex. On flowers of *Petalostemon*.

**aestivalis** Patton. Mass., south to N. C., Tenn., Ill.

- albescens** Cresson. Wis. and Ill., west to Man., Utah, and N. Mex. On flowers of *Amorpha*.
- algarobiae** Cockerell. Utah. On flowers of *Dalea*, *Eriogonum*, *Rhus*.
- andrewsi** Cockerell. Wis., S. Dak., Man. On flowers of *Heuchera*.
- angelicus** Cockerell. On flowers of *Eriogonum*, *Hemizonia*, *Isocoma*.
- annae annae** Cockerell, changed status. N. Mex., Ariz. On flowers of *Baccharis* and *Solidago*.  
*Colletes annae* Cockerell. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 312, fig. 36).
- Colletes crucis* Cockerell (syn. by Stephen, *loc. cit. supra*).
- \**Colletes cockerelli* Timberlake, 1951. Wasmann Jour. Biol. 9: 221. ♀.  
 (Syn. by Stephen, *loc. cit. supra*.)
- \**annae disseptus* Timberlake, changed status. South. Calif.; Baja Calif.  
*Colletes disseptus* Timberlake, 1951. Wasmann Jour. Biol. 9: 223. ♀ ♂.  
 Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 316).
- apacheorum** Timberlake. Syn. of **wootoni** Cockerell.
- \***aridus** Stephen. Tex., N. Mex. On flowers of *Phacelia*.  
*Colletes aridus* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 494, fig. 75.  
 ♂ ♀.
- \***arizonensis** Stephen. Ariz. mts.  
*Colletes arizonensis* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 204. ♂ ♀.
- banksi** Swenk. Fla. to N. Y., Mich.  
*Colletes banksi* Swenk (a valid sp., *teste* T. B. Mitchell based on exam. of types, not a syn. of *distinctus* Cresson).
- \**Colletes ilicis* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 234, figs. 12, 13. ♀, ♂. N. syn. (*teste* T. B. Mitchell, *in litt.*).
- \***beamerorum** Stephen. Tex.; Mexico (Chihuahua). On flowers of *Monarda*.  
*Colletes beamerorum* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 465, fig. 73. ♂.
- birkmanni** Swenk. N. Mex., Okla. On flowers of *Rhus*.
- \***bradleyi** Mitchell. N. J. (Chatsworth and Chesilhurst).  
*Colletes bradleyi* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 239. ♀.
- brevihirtus** Timberlake. Syn. of **ciliatus** Patton.
- \***brimleyi** Mitchell. N. J., N. C., Ga., Fla. On flowers of *Ilex*.  
*Colletes brimleyi* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 231, figs. 14, 15. ♀ ♂.
- \***bryanti** Timberlake. Ariz., N. Mex.  
*Colletes bryanti* Timberlake, 1951. Wasmann Jour. Biol. 9: 208. ♂ ♀.
- \***bulbotibialis** Stephen. N. Mex. (Belen).  
*Colletes bulbotibialis* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 458, fig. 71. ♂.
- californicus** Provancher. South. and centr. Calif. On flowers of *Baccharis*, *Cryptantha*, *Phacelia*, *Layia*. Change p. 1 to p. 189 in orig. cit.
- \***carolinus** Mitchell. Syn. of **distinctus** Cresson.
- \***cercidii** Timberlake. Calif., Ariz. On flowers of *Cercidium*.  
*Colletes cercidii* Timberlake, 1951. Wasmann Jour. Biol. 9: 198. ♂ ♀.
- chamaesarachae** Cockerell. Ariz. On flowers of *Chamaesaracha*.
- \***ciliatoides** Stephen. Utah, Idaho. On flowers of *Cuscuta*.  
*Colletes ciliatoides* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 463, fig. 74. ♂.

- ciliatus* Patton. Va., Ill., Iowa, Nebr., Kans., Colo. On flowers of *Cuscuta*.  
*Colletes speciosa* Robertson (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 460, fig. 72).
- Colletes brevihirtus* Timberlake (syn. by Stephen, *loc. cit. supra*).
- \**cismontanus* Timberlake. A subsp. of *xerophilus* Timberlake.
- clypeonitens* Swenk. Nev., Ariz., west. Tex. On flowers of *Dalea*, *Larrea*, *Prosopis*.
- \**cockerelli* Timberlake. Syn. of *annae annae* Cockerell.
- compactus hesperius* Swenk. Calif., Idaho, Utah, Colo., Ariz.
- consors consors* Cresson. Colo., Wyo., Idaho, Mont. On flowers of *Hydrophyllum*, *Pentstemon*, *Phacelia*, *Taraxacum*.  
*Colletes zonatus* Viereck (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 414, fig. 61).
- consors mesocopus* Swenk, changed status. N. S. to Mass., west to N. W. T. and Alta. On flowers of *Rubus* and *Kalmia*.  
*Colletes mesocopus* Swenk. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 416).
- consors pascoensis* Cockerell. B. C. and Idaho, south to Calif. and Utah. On flowers of *Phacelia*.
- \**covilleae* Timberlake. South. Calif.; Baja Calif. On flowers of *Larrea*.  
*Colletes covilleae* Timberlake, 1951. Wasmann Jour. Biol. 9: 231. ♂ ♀.
- crawfordi* Swenk. A subsp. of *texanus* Cresson.
- crucis* Cockerell. Syn. of *annae annae* Cockerell.
- daleae* Cockerell. Utah, Tex. to Calif.; Baja Calif. On flowers of *Dalea*, *Eriogonum*, *Rhus*.
- \**deserticola* Timberlake. N. Mex., Calif.; Baja Calif. On flowers of *Prosopis* and *Melilotus*.  
*Colletes deserticola* Timberlake, 1951. Wasmann Jour. Biol. 9: 232. ♂ ♀.
- \**disseptus* Timberlake. A subsp. of *annae* Cockerell.
- distinctus* Cresson. N. C., Ga., Fla.  
 \**Colletes carolinus* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 233. ♀. N. syn (*teste* T. B. Mitchell, based on exam. of types).
- eriononi* Cockerell. Syn. of *slevini* Cockerell.
- eulophi* Robertson, changed status. South. half of U. S., west to Colo. and Ariz. On flowers of *Aster*, *Ceanothus*, *Chrysanthemum*, *Clematis*, *Eupatorium*, *Solidago*, *Sophia*.  
*Colletes eulophi eulophi* Robertson. Raised to sp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 266, fig. 22).
- eulophi albertensis* Cockerell. Syn. of *kincaidii* Cockerell.
- fraseriae* Swenk. Syn. of *hyalinus hyalinus* Provancher.
- fulgidus fulgidus* Swenk, changed status. Reduced to subsp. rank. Mont., Alta., S. Dak. On flowers of *Chaenactis*, *Clarkia*, *Encelia*, *Eriogonum*, *Grindelia*, *Isocoma*, *Medicago*, *Melilotus*, *Salix*, *Solidago*.  
 Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1018, figs. 27, 30-33, 35 (larva).
- \**fulgidus longiplumosus* Stephen. Coastal north. Calif. On flowers of *Clarkia* and *Layia*.  
*Colletes fulgidus longiplumosus* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 248. ♂ ♀.
- gaudialis* Cockerell. A subsp. of *hyalinus* Provancher.
- gilensis* Cockerell. Tex. On flowers of *Melilotus*, *Petalostemon*, *Potentilla*, *Solidago*.



- gypsicolens** Cockerell. B. C. to Calif., southeast to Colo. and N. Mex. On flowers of *Aster*, *Chrysothamnus*, *Isocoma*.
- hyalinus gaudialis** Cockerell, changed status. South. Calif. On flowers of *Asclepias*, *Baccharis*, *Eriogonum*, *Gutierrezia*, *Heliotropium*, *Hemizonia*, *Isocoma*, *Oenothera*, *Solidago*.
- Colletes gaudialis** (!) Cockerell, with its synonym **arenicola** Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1951. Wasmann Jour. Biol. 9: 212).
- hyalinus hyalinus** Provancher, changed status. N. S. and Maine, west to Alta., Colo., and N. Mex. On flowers of *Achillea*, *Cirsium*, *Epilobium*, *Kalmia*, *Solidago*, *Rhus*, *Frasera*.
- Colletes hyalinus** Provancher. Reduced to subsp. rank (*teste* Timberlake, 1951. Wasmann Jour. Biol. 9: 210).
- Colletes spurcus** Viereck (syn. by Timberlake, *loc. cit. supra*).
- Colletes fraseræ** Swenk (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 369, fig. 51).
- \*hyalinus oregonensis** Timberlake. Coastal Oreg. and Calif.
- Colletes hyalinus oregonensis** Timberlake, 1951. Wasmann Jour. Biol. 9: 211. ♀ ♂.
- \*ilicis** Mitchell. Syn. of **banksi** Swenk.
- impunctatus lacustris** Swenk, changed status. N. B. and N. H. west to B. C., Yukon, N. W. T. Typical *impunctatus* Nylander is Palaearctic.
- Colletes lacustris** Swenk. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 401, fig. 58).
- Colletes vicinalis** Graenicher (syn. by Stephen, *loc. cit. supra*).
- inaequalis** Say, changed status. N. S. to Ga., west to Sask., Kans., Tex., and into Idaho and Wash.
- Colletes inaequalis inaequalis** Say and **Colletes inaequalis ferrugineus** Swenk (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 389, fig. 55).
- inaequalis ferrugineus** Swenk. Syn. of **inaequalis** Say.
- \*kansensis** Stephen. Kans. On flowers of *Monarda*.
- Colletes kansensis** Stephen, 1954. Kans. Univ. Sci. Bul. 36: 297, fig. 29. ♂.
- kincaidii** Cockerell. N. S. and N. Y. west to B. C. and Calif. On flowers of *Heracleum*, *Pentstemon*, *Potentilla*, *Symphoricarpos*.
- Colletes eulophi albertensis** Cockerell (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 270).
- Colletes stricklandi** Cockerell (syn. by Stephen, *loc. cit. supra*).
- lacustris** Swenk. A subsp. of **impunctatus** Nylander.
- \*larreæ** Timberlake. South. Calif., Ariz. On flowers of *Larrea*, *Acamptopappus*, *Barbarea*.
- Colletes larreæ** Timberlake, 1951. Wasmann Jour. Biol. 9: 193. ♂ ♀.
- \*laticinctus** Timberlake. Nebr. west to Idaho, south to N. Mex. and Ariz. On flowers of *Gutierrezia*, *Pectis*, *Polygonum*.
- Colletes laticinctus** Timberlake, 1951. Wasmann Jour. Biol. 9: 220. ♀.
- latitarsis** Robertson. Mich. to Fla., west to Mont., Colo., Tex., Ariz. On flowers of *Physalis*, *Asclepias*, *Ceanothus*, *Polygonum*, *Solidago*, *Symphoricarpos*.
- \*linsleyi** Timberlake. Calif. (Blythe). On flowers of *Tamarix*.
- Colletes linsleyi** Timberlake, 1951. Wasmann Jour. Biol. 9: 205. ♀.
- \*longifacies** Stephen. Fla. (De Funiak Springs).
- Colletes longifacies** Stephen, 1954. Kans. Univ. Sci. Bul. 36: 500. ♀.
- louisæ** Cockerell. South. Calif. to west. Tex. On flowers of *Baccharis*, *Chrysothamnus*, *Isocoma*, *Larrea*, *Prosopis*, *Solidago*.
- Colletes tucsonensis** Cockerell (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 252, fig. 18).

- \***lutzi interior** Timberlake, changed status. Northeast. Calif., Nev., Oreg., Wash., Idaho. On flowers of *Melilotus*.  
**Colletes monticola interior** Timberlake, 1951. Wasmann Jour. Biol. 9: 214. ♀ ♂. A subsp. of **lutzi** Timberlake (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 376).
- lutzi lutzi** Timberlake, changed status. Idaho, Wyo., Utah, Colo., N. Mex. On flowers of *Chrysothamnus*, *Cleome*, *Melilotus*.  
**Colletes lutzi** Timberlake. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 375).
- \***lutzi monticola** Timberlake, changed status. Sierras of Calif. On flowers of *Castanopsis*, *Chrysothamnus*, *Solidago*.  
**Colletes monticola monticola** Timberlake, 1951. Wasmann Jour. Biol. 9: 212. ♀ ♂. Reduced to subsp. rank under **lutzi** (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 378).  
**Colletes monticola inyoensis** Timberlake, 1951. Wasmann Jour. Biol. 9: 215. ♀. (Syn. by Stephen, *loc. cit. supra.*)
- \***lutzi pinorum** Timberlake, changed status. South. Calif. (San Jacinto and San Bernardino Mts.). On flowers of *Aster*, *Cryptantha*, *Eriogonum*, *Gnaphalium*, *Hemizonia*, *Layia*.  
**Colletes monticola pinorum** Timberlake, 1951. Wasmann Jour. Biol. 9: 215. ♀ ♂. A subsp. of **lutzi** Timberlake (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 381).
- mandibularis** Smith. B. C., N. S., U. S., east of the Rockies. On flowers of *Amorpha*, *Amphiachris*, *Cassia*, *Heterotheca*, *Isopappus*, *Medicago*, *Melilotus*, *Prionopsis*.  
**Colletes similis** Robertson, not Schenck (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 360, fig. 48).  
**Colletes simulator** Michener (syn. by Stephen, *loc. cit. supra.*)
- mesocopus** Swenk. A subsp. of **consors** Cresson.
- \***metzi** Timberlake. Colo. (Boulder).  
**Colletes metzi** Timberlake, 1951. Wasmann Jour. Biol. 9: 192. ♂. Taxonomy: Stephen, 1954. Kans. Univ. Sci. Bul. 36: 289, fig. 30.
- \***micheneri** Stephen. Nebr. (Halsey).  
**Colletes micheneri** Stephen, 1954. Kans. Univ. Sci. Bul. 36: 357. ♂ ♀.
- \***mittelli** Stephen. U. S. east of the Great Plains, except New England.  
**Colletes mittelli** Stephen, 1954. Kans. Univ. Sci. Bul. 36: 325, fig. 38. ♂ ♀.
- \***monticola interior** Timberlake. A subsp. of **lutzi** Timberlake.
- \***monticola inyoensis** Timberlake. A syn. of **lutzi monticola** Timberlake.
- \***monticola monticola** Timberlake. A subsp. of **lutzi** Timberlake.
- \***monticola pinorum** Timberlake. A subsp. of **lutzi** Timberlake.
- nigrifrons** Titus. North Que. to N. W. T. and Yukon, south in mts. to north-east Calif., Ariz., and N. Mex. On flowers of *Drymocallis*, *Linum*, *Mertensia*, *Oxytropis*, *Polemonium*, *Potentilla*, *Ranunculus*.
- \***nitescens** Timberlake. Calif.  
**Colletes nitescens** Timberlake, 1951. Wasmann Jour. Biol. 9: 187. ♂ ♀.
- nudus** Robertson. Ont. south to N. C. and La.; west to Wis., Colo. On flowers of *Monarda*, *Verbena*, *Symphoricarpos*, *Melilotus*.
- ochraceus** Swenk. Baja Calif. On flowers of *Eriogonum*, *Isocoma*.
- \***paniscus mertensiae** Timberlake. North. Calif. On flowers of *Mertensia*.  
**Colletes paniscus mertensiae** Timberlake, 1951. Wasmann Jour. Biol. 9: 182. ♂ ♀.
- paniscus paniscus** Viereck, changed status. Ariz. and N. Mex., north to Mont. On flowers of *Houstonia*, *Iris*, *Mertensia*, *Salix*.  
**Colletes paniscus** Viereck. Reduced to subsp. rank (*teste* Timberlake, 1951. Wasmann Jour. Biol. 9: 182.)

- Colletes pleuralis* Swenk (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 420).
- \**paniscus sculleni* Timberlake. Oreg., Wash., Idaho, Utah, Wyo. On flowers of *Mertensia*.
- Colletes paniscus sculleni* Timberlake, 1951. Wasmann Jour. Biol. 9:183. ♂ ♀.
- \**perileucus* Cockerell. Mexico (Baja Calif., Sonora); Calif., Ariz., Tex. On flowers of *Prosopis* and *Melilotus*.
- Colletes perileucus* Cockerell, 1924. Calif. Acad. Sci. Proc. (4) 12: 535. ♀.
- petalostemonis* Swenk. N. Dak. and Nebr. to Alta., Ariz., and Calif. On flowers of *Dalea* and *Petalostemon*.
- phaceliae* Cockerell. B. C. to Man., south to Iowa, Kans., N. Mex., Ariz., Calif. On flowers of *Aster*, *Cleome*, *Epilobium*, *Grindelia*, *Gutierrezia*, *Helenium*, *Malvastrum*, *Melilotus*, *Petalostemon*, *Phacelia*, *Psoralea*, *Ribes*, *Senecio*, *Solidago*, *Tetradymia*.
- pleuralis* Swenk. Syn. of *paniscus paniscus* Viereck.
- productus* Robertson. Mass., west to Wis., south to Ga. and Ala. On flowers of *Rhus* and *Xolisma*.
- pulcher* Swenk. Syn. of *thoracicus* Smith.
- \**punctipennis maurus* Stephen. Tex. (Brownsville). Typical *punctipennis* Cresson occurs only in Mexico.
- Colletes punctipennis maurus* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 232, fig. 11. ♂.
- punctipennis* Cresson. Delete this entry; U.S. specimens belong to *punctipennis maurus* Stephen.
- robertsonii* Dalla Torre, changed status. Ill. and Miss., west to Man. and N. Mex. On flowers of *Amorpha*, *Monarda*, *Petalostemon*.
- Colletes robertsonii robertsonii* Dalla Torre. Raised to sp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 286).
- Colletes robertsonii robustus* Swenk. (Syn. by Stephen, *loc. cit supra*.)
- robertsonii robustus* Swenk. Syn. of *robertsonii* Dalla Torre.
- \**rudis* Timberlake. Calif. (near Indio). On flowers of *Encelia*.
- Colletes rudis* Timberlake, 1951. Wasmann Jour. Biol. 9:197. ♂.
- rufithorax* Swenk. Syn. of *thoracicus* Smith.
- rufocinctus* Cockerell. Minn. west to Alta., south to S. Dak., Colo., Ariz. On flowers of *Aster*, *Grindelia*, *Helianthus*, *Solidago*, *Taraxacum*.
- salicicola* Cockerell. Tex. to Calif., in deserts. On flowers of *Cercidium*, *Dalea*, *Eriogonum*, *Hyptis*, *Larrea*, *Phacelia*, *Prosopis*, *Salix*.
- \**saritensis* Stephen. Tex. (near Sarita). On flowers of *Dalea*.
- Colletes saritensis* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 341, fig. 43. ♂ ♀.
- scopiventer* Swenk. Ariz., Calif. On flowers of *Chamaesaracha* and *Solanum*. In orig. cit., change ♀ ♂ to ♀ (♂ misdet.).
- similis* Robertson, not Schenck. Syn. of *mandibularis* Smith.
- simulans armatus* Patton. N. S., south to N. C., west to Nebr. and Alta. On flowers of *Aster* and *Solidago*.
- \**simulans miamiensis* Mitchell. Fla. (Miami). Intergrades between *s. simulans* and *s. miamiensis* occur in Miss. and Tex.
- Colletes simulans miamiensis* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 236. ♂.
- simulans nevadensis* Swenk. Wash., Oreg. On flowers of *Baccharis*, *Chrysothamnus*, *Ericameria*, *Eriogonum*, *Gutierrezia*, *Aplopappus*, *Lepidospartum*.



- simulans simulans** Cresson. Mont., Ariz. On flowers of *Aster*, *Bigelovia*, *Grindelia*, *Senecio*.
- simulator** Michener. Syn. of **mandibularis** Smith.
- skinneri** Viereck. Ariz.
- slevini** Cockerell. Wash. to Wyo., south to Calif. and Ariz. On flowers of *Amorpha*, *Aster*, *Bigelovia*, *Chrysanthemum*, *Eriogonum*, *Euphorbia*, *Rhamnus*.
- Colletes eriogoni** Cockerell (syn. by Timberlake, 1951. Wasmann Jour. Biol. 9: 208).
- solidaginis** Swenk. Mass. to N. C., west to Minn. and Nebr.
- \*solitarius** Timberlake. Calif. (Inyo Co.).  
**Colletes solitarius** Timberlake, 1951. Wasmann Jour. Biol. 9: 216. ♀.
- speciosus** Robertson. Syn. of **ciliatus** Patton.
- \*sphaeralceae** Timberlake. Calif., Nev., Utah. On flowers of *Sphaeralcea*.  
**Colletes sphaeralceae** Timberlake, 1951. Wasmann Jour. Biol. 9: 189.  
♂ ♀.
- spurcus** Viereck. Syn. of **hyalinus hyalinus** Provancher.
- stricklandi** Cockerell. Syn. of **kincaidii** Cockerell.
- susannae** Swenk. Wis. and Ill., west to Alta. and Colo. On flowers of *Kuhnistera* and *Helianthus*.
- \*swenki** Stephen. Tex., Kans. On flowers of *Acacia*, *Coreopsis*, *Rhus*, *Prosopis*, *Chamaesaracha*, *Marrubium*, *Quincula*.  
**Colletes swenki** Stephen, 1954. Kans. Univ. Sci. Bul. 36: 450, fig. 68.  
♂ ♀.
- \*tectiventris** Timberlake. Calif. On flowers of *Isocoma*, *Eriogonum*.  
**Colletes tectiventris** Timberlake, 1951. Wasmann Jour. Biol. 9: 218.  
♀ ♂.
- texanus crawfordi** Swenk, changed status. North. Tex. On flowers of *Physalis*.  
**Colletes crawfordi** Swenk. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 450).
- texanus texanus** Cresson, changed status. South Tex.  
**Colletes texanus** Cresson. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 447, fig. 69).
- thoracicus** Smith. Mass. to Fla., west to Okla. and Tex. On flowers of *Ilex*, *Pyrus*, *Salix*, *Vaccinium*.  
**Colletes pulcher** Swenk (syn. by Stephen, 1954. Kans. Univ. Sci. Bul. 36: 393, fig. 56).  
**Colletes rufithorax** Swenk (syn. by Stephen, *loc. cit. supra*).
- \*thysanellae** Mitchell. Fla., Ga., N. C., Va.  
**Colletes thysanellae** Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 238, figs. 18-20. ♀ ♂.
- \*timberlakei** Stephen. Colo., Wyo. On flowers of *Petalostemon*.  
**Colletes timberlakei** Stephen, 1954. Kans. Univ. Sci. Bul. 36: 290, fig. 31. ♂.
- \*titusensis** Mitchell. Fla. (Titusville, Tampa).  
**Colletes titusensis** Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 237, figs. 16, 17. ♂.  
Taxonomy: Stephen, 1954. Kans. Univ. Sci. Bul. 36: 497, fig. 84. ♀.
- tucsonensis** Cockerell. Syn. of **louisae** Cockerell.
- \*turgiventris** Timberlake. Calif. On flowers of *Phacelia*.  
**Colletes turgiventris** Timberlake, 1951. Wasmann Jour. Biol. 9: 196.  
♂ ♀.
- validus** Cresson. N. B. to N. C., west to Mich. On flowers of *Prunus*, *Ribes*, *Vaccinium*, *Leucothoe*, *Chamaedaphne*.

\**vandykei* Timberlake. Ariz. (Santa Rita Mts.).

*Colletes vandykei* Timberlake, 1951. Wasmann Jour. Biol. 9: 200. ♂.

*vicinalis* Graenicher. Syn. of *impunctatus lacustris* Swenk.

*wickhami* Timberlake. Kans., Tex., N. Mex., Ariz. On flowers of *Chrysanthamnus*, *Helenium*, *Phacelia*, *Quincula*.

*wilmattae* Cockerell. Wis., Minn., Iowa, Man., Nebr., Tex., N. Mex. On flowers of *Petalostemon*.

*wootoni* Cockerell. Ariz. to west. Tex. On flowers of *Amorpha*, *Dasylirion*, *Helenium*, *Isocoma*, *Melilotus*, *Nolium*, *Phacelia*, *Petalostemon*, *Sapindus*, *Sphaeralcea*, *Solidago*, *Wislizenia*.

*Colletes apacheorum* Timberlake (syn. by Timberlake, 1951. Wasmann Jour. Biol. 9: 210).

\**xerophilus cismontanus* Timberlake, changed status. South. Calif. deserts.

*Colletes cismontanus* Timberlake, 1951. Wasmann Jour. Biol. 9: 186.

♂ ♀. Reduced to subsp. rank (*teste* Stephen, 1954. Kans. Univ. Sci. Bul. 36: 437).

\**xerophilus sonoranus* Timberlake. N. Mex. (Pecos). On flowers of *Salix*.

*Colletes xerophilus sonoranus* Timberlake, 1951. Wasmann Jour. Biol. 9: 186.

\**xerophilus xerophilus* Timberlake. South. Calif. On flowers of *Salix*.

*Colletes xerophilus* Timberlake, 1951. Wasmann Jour. Biol. 9: 184.

♂ ♀.

*zonatus* Viereck. Syn. of *consors consors* Cresson.

#### Genus *HYLAEUS* Fabricius, pp. 1049-1052

\**certus* Mitchell. Preocc., syn. of *illinoisensis* Robertson.

*confluens* (Smith). N. C. (*Prosopis*)

*Hylaeus triangularis* (Cockerell), n. syn. (*teste* T. B. Mitchell, based on exam. of type of *confluens*).

*cressoni cressoni* (Cockerell). Nests in twig of *Symphoricarpos*.

*ellipticus* (Kirby). In orig. cit. of *elliptica* change 1827 to 1837.

\**graenicheri* Mitchell. Fla. (Miami).

*Hylaeus graenicheri* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 240. ♀.

\**hydrangeae* Mitchell. N. C. (Cruso). On flowers of *Hydrangea*. (*Metziella*)

*Hylaeus (Metziella) hydrangeae* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 244. ♀.

*illinoisensis* Robertson. Maine, Mass., N. Y. On flowers of *Apocynum* and *Pastinaca*. (*Prosopis*)

*Hylaeus modestus modestus* Say, in part. *Prosopis illinoisensis* Robertson is a valid sp., not a syn. (*teste* T. B. Mitchell, based on type exam.).

\**Hylaeus (Prosopis) certus* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 241, figs. 4-7. ♂ ♀. Preocc., n. syn. (*teste* T. B. Mitchell, in litt.).

*melitinus* (Lovell). Syn. of *verticalis verticalis* (Cresson).

*modestus modestus* Say. Remove *sparsus* (Cresson) and *illinoisensis* (Robertson), both valid spp., from syn.

*nelumbonis* (Robertson). Transf. *fossata* Metz to syn. of *schwarzii* (Cockerell).

\**ornatus* Mitchell. N. C. (coast and Piedmont). On flowers of *Hypericum*, *Cephalanthus* and *Parthenocissus*. (*Prosopis*)

*Hylaeus (Prosopis) ornatus* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 242, figs. 8-11. ♂ ♀.

\**packardi* Mitchell. Me., N. Y. (*Paraprosopis*)

*Hylaeus (Paraprosopis) packardi* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 244. ♂.

*schwarzii* (Cockerell). N. C.

*Hylaeus fossata* (Metz), n. syn. The ♂ type is a specimen of *schwarzii*, not of *nelumbonis* (Robertson); the ♀ allotype is a specimen of *ornatus* Mitchell (*teste* T. B. Mitchell, based on exam. of type series of *fossata*).

*sparsus* (Cresson), changed status. A valid sp., not a syn. of *modestus* Say.

*Hylaeus thaspiae* (Robertson), n. syn. (*teste* T. B. Mitchell who has exam. types of *sparsus* and *thaspiae*).

*thaspiae* (Robertson). Syn. of *sparsus* (Cresson).

*triangularis* (Cockerell). Syn. of *confluens* Smith.

*verticalis verticalis* (Cresson).

*Hylaeus melitinus* (Lovell), n. syn. (*teste* T. B. Mitchell, based on exam. of type of *melitina*).

\**volusiensis* Mitchell. Fla. (Volusia Co.) (*Prosopis*)

*Hylaeus (Prosopis) volusiensis* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 245. ♀ ♂.

## Family ANDRENIDAE

Taxonomy: Rozen, 1951. Kans. Ent. Soc. Jour. 24: 142-150, 17 figs. (male genitalia).

### Genus ANDRENA Fabricius, pp. 1053-1086

\**Andrena* subg. *Bythandrena* Lanham, 1950. Ent. News 61: 140. N. name for *Andrena* subg. *Cryptandrena* Lanham, 1949, preocc. by *Cryptandrena* Pittioni, 1948.

\**Andrena* subg. *Onagrandrena* Linsley and MacSwain, 1956. Pan-Pacific Ent. 32: 111.

Type: *Andrena oenotherae* Timberlake. Orig. design.

Taxonomy: Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 163-172 (key to spp. of subg. *Melandrena* Perez).

*adela* Viereck. Syn. of *bisalicis* Viereck.

*albofoveata* (Graenicher). N. C.

*amplificata* Cockerell. Calif.

\**angelesia* Timberlake. South. Calif. On flowers of *Platystemon*, *Encelia*, and *Cryptantha*. (*Oligandrena*)

*Andrena (Oligandrena) angelesia* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 404. ♀ ♂.

*anograe* Cockerell. Wyo., Calif. Bearing pollen of *Oenothera*. Transf. from (*Melandrena*) to (*Onagrandrena*)

*Andrena micranthophila* Cockerell (syn. by Linsley and MacSwain, 1955). Pan-Pacific Ent. 31: 166).

*belfragei* Cresson. Syn. of *perplexa* Smith.

*bernardina* Linsley. A subsp. of *grundeli* Linsley.

*bipunctata* Cresson. A syn. of *miserabilis* Cresson by rule of first reviser.

*bisalicis* Viereck.

*Andrena adela* Viereck, n. syn. (*teste* T. B. Mitchell, based on exam. of types).

*blaisdelli* Cockerell. On flowers of *Oenothera*, *Salix*, *Cryptantha*. Transf. from (*Melandrena*) to (*Onagrandrena*).



- \***blandula** Timberlake. Calif. (Mt. Hamilton Range). (*Thysandrena*)  
*Andrena (Thysandrena) blandula* Timberlake, 1951. U. S. Natl. Mus.  
 Proc. 101: 410. ♀.
- bradleyi** Viereck. N. C.
- \***californica californica** Timberlake. Calif. On flowers of *Quercus*,  
*Ceanothus*, *Arctostaphylos*, *Cryptantha*, *Horkelia*, *Salix*, *Nem-*  
*ophila*. (*Trachandrena*)  
*Andrena (Trachandrena) californica* Timberlake, 1951. U. S. Natl. Mus.  
 Proc. 101: 373. ♀ ♂.
- \***californica wickhami** Timberlake. North. Calif. (*Trachandrena*)  
*Andrena (Trachandrena) californica wickhami* Timberlake, 1951. U. S.  
 Natl. Mus. Proc. 101: 375. ♀.
- carlini** Cockerell. Wyo.
- chlorogaster chlorogaster** Viereck, changed status. On flowers of *Sambucus*,  
*Ranunculus*, *Trifolium*.  
*Andrena chlorogaster* Viereck. Reduced to subsp. rank (*teste* Timber-  
 lake, 1951. U. S. Natl. Mus. Proc. 101: 392. ♂).
- \***chlorogaster gavilanica** Timberlake. South. Calif. On flowers of *Lomatium*  
 and *Sanicula*. (*Micrandrena*)  
*Andrena (Micrandrena) chlorogaster gavilanica* Timberlake, 1951. U. S.  
 Natl. Mus. Proc. 101: 394. ♂ ♀.
- \***chlorogaster nesiotis** Timberlake. Calif. (Santa Catalina Is.). (*Micrandrena*)  
*Andrena (Micrandrena) chlorogaster nesiotis* Timberlake, 1951. U. S.  
 Natl. Mus. Proc. 101: 394. ♂.
- cockerelli** Graenicher. Syn. of **frigida** Smith.
- colletina** Cockerell. North. Calif.
- complexa** Viereck.  
 Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1034, figs. 82,  
 83, 85 (larva).
- cornelli** Viereck. Syn. of **tridens** Robertson.
- crassihirta** (Viereck). Oreg.
- \***cryptanthae** Timberlake. South. Calif. On flowers of *Cryptantha*.  
 (*Scoliandrena*)  
*Andrena (Scoliandrena) cryptanthae* Timberlake, 1951. U. S. Natl. Mus.  
 Proc. 101: 401. ♀ ♂.
- deserticola** Timberlake. On flowers of *Oenothera*. Transf. from (*Melandrena*)  
 to (*Onagrandrena*).  
 Biology: Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 182-183.
- \***dissimulans** Timberlake. Calif. (Tulare Co.). On flowers of *Calandrinia*  
 and *Baeria*. (*Thysandrena*)  
*Andrena (Thysandrena) dissimulans* Timberlake, 1951. U. S. Natl. Mus.  
 Proc. 101: 408. ♀ ♂.
- \***duboisii** Timberlake. North. Calif. On flowers of *Baeria*. (*Hesperandrena*)  
*Andrena (Hesperandrena) duboisii* Timberlake, 1951. U. S. Natl. Mus.  
 Proc. 101: 390. ♀ ♂.
- erigeniae** Robertson. N. C.
- erigenoides** (Viereck). Change spelling in sp. heading and orig. cit. from  
*erigenioides* to *erigenoides*.
- erythronii** Robertson. On flowers of *Erythronium*, *Quercus*, *Prunus*,  
*Taraxacum*, *Malus*.  
 Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1035, figs. 88-91  
 (larva).  
 Biology: Michener and Rettenmeyer, 1956. Kans. Univ. Sci. Bul.  
 37: 645-679, figs. 1-20.

- \***essigi** Timberlake. South. Calif. On flowers of *Layia*, *Baeria*, *Cryptantha*, *Sisymbrium*. (*Stenandrena*)  
*Andrena (Stenandrena) essigi* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 384. ♀ ♂.
- flandersi** Timberlake. Carrying pollen of *Oenothera*. Transf. from (*Melandrena*) to (*Onagrاندrena*).  
 Biology: Linsley and MacSwain, 1956. Pan-Pacific Ent. 32: 118-120.
- forbesii** Robertson. N. C.
- foxii** Cockerell. On flowers of *Oenothera*. Transf. from (*Diandrena*) to (*Onagrاندrena*).  
 Biology: Linsley and MacSwain, 1956. Pan-Pacific Ent. 32: 120-121.
- frigida** Smith. Mass., Minn.  
*Andrena moesta* Smith, n. syn. (teste T. B. Mitchell, based on exam. of types).  
*Andrena cockerelli* Graenicher, n. syn. (teste T. B. Mitchell, based on exam. of type).
- fulvipennis** Smith. N. C.
- geranii** Robertson. Minn.
- geranii-maculati** Viereck. Mass.
- grandior** Cockerell. Syn. of *miranda* Smith.
- grundeli bernardina** Linsley, changed status. South. Calif.  
*Andrena bernardina* Linsley. Reduced to subsp. rank (teste Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 166).
- grundeli grundeli** Linsley, changed status. North. Calif.  
*Andrena grundeli* Linsley. Reduced to subsp. rank (teste Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 166).
- \***haroldi** Timberlake. Calif. On flowers of *Baeria*. (*Micrandrena*)  
*Andrena (Micrandrena) haroldi* Timberlake, 1951. U. S. Nat. Mus. Proc. 101: 398. ♀ ♂.
- \***isocomae** Timberlake. Calif. On flowers of *Isocoma* and *Gutierrezia*. (*Pterandrena*)  
*Andrena (Pterandrena) isocomae* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 378. ♀ ♂.
- \***lativentris** Timberlake. Calif. On flowers of *Baeria* and *Layia*. (*Hesperandrena*)  
*Andrena (Hesperandrena) lativentris* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 388. ♀ ♂.
- \***layiae** Timberlake. Calif.; Baja Calif. On flowers of *Layia*. (*Ptilandrena*)  
*Andrena (Ptilandrena) layiae* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 381. ♀.
- \***limnanthis** Timberlake. Calif. (Marin and Sonoma Counties). On flowers of *Limnanthes*. (*Hesperandrena*)  
*Andrena (Hesperandrena) limnanthis* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 387. ♀ ♂.
- linsleyi** Timberlake. On flowers of *Oenothera*, *Baileya*, *Geraea*, and *Encelia*. Transf. from (*Melandrena*) to (*Onagrاندrena*).
- maccoupinensis** Robertson. N. C.
- \***macra** Mitchell. N. C. (Raleigh). On flowers of *Rubus* (? *Gymnandrena*)  
*Andrena macra* Mitchell, 1951. Elisha Mitchell Sci. Soc. Jour. 67: 246, figs. 1-3. ♀ ♂.  
 Biology: Sivik, 1954. Ent. News 65: 253-255.
- melliventris** Cresson. Kans.
- micranthophila** Cockerell. Syn. of *anograe* Cockerell.

- microchlora microchlora** Cockerell, changed status. Colo.  
*Andrena microchlora* Cockerell of Catalog, in part. Reduced to subsp. rank (*teste* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 397).
- microchlora subalia** Cockerell, changed status. Wash., Oreg., Calif. On flowers of *Taraxacum*.  
*Andrena microchlora* Cockerell of Catalog, in part. *Andrena microchlora* var. *subalia*, a subsp. of *microchlora*, not a syn. (*teste* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 397).
- miranda** Smith.  
*Andrena grandior* Cockerell, n. syn. (*teste* T. B. Mitchell based on exam. of type of *miranda*).
- \*misella** Timberlake. Calif. On flowers of *Amsinckia* and *Brassica*. (*? Gymnandrena*)  
*Andrena misella* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 410. ♀.
- miserabilis** Cresson. On flowers of *Cercis*, *Prunus*, *Malus*, *Pyrus*, *Spiraea*, *Viburnum*. Replaces *bipunctata* Cresson by rule of first reviser. Biology: Michener and Rettenmeyer, 1956. Kans. Univ. Sci. Bul. 37: 679-681, fig. 21.
- moesta** Smith. Syn. of *frigida* Smith.
- \*mojavensis** Linsley and MacSwain. Calif. (near Inyokern). On flowers of *Oenothera*. Transf. from (*Melandrena*) to (*Onagrandrena*).  
*Andrena (Melandrena) mojavensis* Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 171. ♀ ♂.  
 Biology: Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 179-181.
- nitidicornis** Cockerell. On flowers of *Salix* and *Ceanothus*.  
 Taxonomy: Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 396.
- nuda** Robertson. N. C.
- oenotherae** Timberlake. On flowers of *Oenothera*, *Layia*, *Hemizonia*, *Sisymbrium*, *Encelia*, *Lantana*, *Calandrinia*. Transf. from (*Melandrena*) to (*Onagrandrena*).  
 Biology: Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 181-182.—  
 Linsley and MacSwain, 1956. Pan-Pacific Ent. 32: 116-118, 1 fig.
- omninigra** Viereck. Transf. from (*Melandrena*) to (*Onagrandrena*).
- \*opacella** Timberlake. Calif. (Mt. Hamilton Range). (*Simandrena*)  
*Andrena (Simandrena) opacella* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 406. ♀.
- pallidifovea** (Viereck). Utah. On flowers of *Ericameria*, *Helianthus*, *Layia*, *Chaenactis*, and *Eriophyllum*.  
 Taxonomy: Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 383. ♂.
- \*palpalis** Timberlake. South. Calif. On flowers of *Phacelia*, *Calandrinia*, *Cryptantha*. (*Andrena*)  
*Andrena (Andrena) palpalis* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 400. ♀ ♂.
- papagorum** Viereck and Cockerell. Calif.
- perplexa** Smith.  
*Andrena belfragei* Cresson, n. syn. (*teste* T. B. Mitchell, based on exam. of types).
- phenax** Cockerell. (*? Onagrandrena*)
- piperi** Viereck. Utah.  
 Taxonomy: Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 392. ♂.
- \*plumiscopa** Timberlake. South. Calif. On flowers of *Cryptantha* and *Platystemon*. (*Pterandrena*)  
*Andrena (Pterandrena) plumiscopa* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 376. ♀ ♂.
- politissima** Cockerell. Calif.



**prima** Casad. Transf. from (*Melandrena*) to (*Onagrandrena*).

\***radialis** Timberlake. South. Calif. On flowers of *Salix*, *Sisymbrium*, *Brassica*, *Capsella*, *Alyssum*, *Sedum*, *Taraxacum*, *Sonchus*, *Baccharis*. (*Micrandrena*)

*Andrena (Micrandrena) radialis* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 395. ♂ ♀.

**robertsoni** Dalla Torre. N. C.

\***rozeni** Linsley and MacSwain. South. Calif. On flowers of *Oenothera*. Transf. from (*Melandrena*) to (*Onagrandrena*).

*Andrena (Melandrena) rozeni* Linsley and MacSwain, 1955. Pan-Pacific Ent. 31: 168. ♀ ♂.

**rubrotincta** Linsley. Transf. from (*Melandrena*) to (*Onagrandrena*).

**sayi** Robertson. N. C.

**scurra montrosensis** Viereck and Cockerell. Change spelling in sp. heading from *monstrosensis* to *montrosensis*.

**semirufa** Cockerell. N. C.

**sigmundi** Cockerell. Maine.

**sola** Viereck. Change *ensenadana* Cockerell to *ensenadensis*.

**spiraeara** Robertson. N. C.

**stictigastrea** Viereck. Change spelling in sp. heading and orig. cit. from *stictogastra* to *stictigastrea*. (? *Onagrandrena*)

\***subdepressa** Timberlake. Calif. On flowers of *Brassica*. (*Thysandrena*)  
*Andrena (Thysandrena) subdepressa* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 407. ♀ ♂.

**subtilis subtilis** Smith. Calif.

**surda** Cockerell. N. Mex.

**trevoris** Cockerell. Oreg., Calif.

Taxonomy: Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 380. ♀.

**tridens** Robertson. N. C.

*Andrena cornelli* Viereck, n. syn. (*teste* T. B. Mitchell, based on exam. of types).

**vanduzeei** Linsley. Transf. from (*Melandrena*) to (*Onagrandrena*).

\***vexabilis** Timberlake. North. Calif. On flowers of *Baeria*. (*Stenandrena*)  
*Andrena (Stenandrena) vexabilis* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 385. ♀ ♂.

**viburnella** Graenicher. N. C.

**violae** Robertson. N. C.

**wellesleyana** Robertson. Minn.

#### Genus **ANCYLANDRENA** Cockerell, p. 1086

Reduced to subgeneric rank under *Megandrena* Cockerell by Lanham, 1949, Univ. Calif. Pubs. Ent. 8: 192.

\***koebelei** Timberlake. Calif. (Panamint Valley).

*Megandrena (Ancylandrena) koebelei* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 413. ♂.

\***larreae** Timberlake. South. Calif. On flowers of *Larrea*.

*Megandrena (Ancylandrena) larreae* Timberlake, 1951. U. S. Natl. Mus. Proc. 101: 411. ♀ ♂.

#### **PSAENYTHIA** subgenus **PROTANDRENA** Cockerell, p. 1087

Taxonomy: Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 398-409 (key to females).

*asclepiadis* (Cockerell). Syn. of *mexicanorum mexicanorum* (Cockerell).  
*bancrofti* (Dunning). Tex., Kans., Nebr., Iowa, N. Dak.

\**bicolor* Timberlake. Ariz. (Willcox).

*Psaenythia bicolor* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 401. ♀.

*cockerelli* (Dunning). A subsp. of *mexicanorum* (Cockerell).

\**duplonotata* Timberlake. Ariz. (Pinal Co.).

*Psaenythia duplonotata* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 407. ♀.

\**euphorbiae* Timberlake. Ariz. (Picacho Pass). On flowers of *Euphorbia*.

*Psaenythia euphorbiae* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 406. ♀.

*heteromorpha* (Cockerell). Ariz. On flowers of *Verbesina*, *Heterotheca*, *Gutierrezia*.

*mexicanorum cockerelli* (Dunning), changed status.

*Psaenythia (Protandrena) cockerelli* (Dunning). Reduced to subsp. rank (*teste* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 400).

*mexicanorum mexicanorum* (Cockerell), changed status. On flowers of *Solanum*, *Kallstroemia*, *Asclepias*.

*Psaenythia (Protandrena) mexicanorum* (Cockerell). Reduced to subsp. rank (*teste* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 400).

*Andrena asclepiadis* Cockerell (syn. by Timberlake, *loc. cit. supra*).

\**pectidis* Timberlake. Ariz. On flowers of *Pectis* and *Viguiera*.

*Psaenythia pectidis* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 405. ♀.

*trifoliata* (Cockerell). Ariz. (Portal). On flowers of *Solanum*.

\**verbesinae* Timberlake. Ariz. (Cochise Co.) On flowers of *Verbesina*.

*Psaenythia verbesinae* Timberlake, 1955. Bol. Lab. Zool. Gen. Agr. 33: 402. ♀ ♂.

#### Genus PERDITA Smith, pp. 1087-1097

\**Perdita* subg. *Pseudomacrotera* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 349.

Type: *Perdita turgiceps* Timberlake. Orig. desig.

\**Perdita* subg. *Macroterella* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 360.

Type: *Perdita mortuaria* Timberlake. Orig. desig.

\**Perdita* subg. *Heteroperdita* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 365.

Type: *Perdita rhodogastra* Timberlake. Orig. desig.

\**Perdita* subg. *Hesperoperdita* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 374.

Type: *Perdita ruficauda* Cockerell. Orig. desig.

\**Perdita* subg. *Epimacrotera* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 377.

Type: *Perdita ainsliei* Crawford. Orig. desig.

\**Perdita* subg. *Procockerellia* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 402.

Type: *Perdita albonotata* Timberlake. Orig. desig.

\**Perdita* subg. *Xeromacrotera* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 412.

Type: *Macrotera cephalotes* Cresson. Orig. desig.

\**Perdita* subg. *Hexaperdita* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 416.

Type: *Perdita ignota* Cockerell. Orig. desig.

\**Perdita* subg. *Pygoperdita* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 275.

Type: *Perdita interrupta* Cresson. Orig. desig.

Revision: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 345-432, 172 figs. (all subgenera except *Hexaperdita* Timberlake, *Perditella* Cockerell, *Alloperdita* Viereck, and typical *Perdita* Smith).—Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 247-350, figs. 173—367 (treats subgenera *Alloperdita* Viereck, *Perditella* Cockerell, *Hexaperdita* Timberlake, and *Pygoperdita* Timberlake).

**ainsliei** Crawford. (*Epimacrotera*)

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 379, figs. 55, 56, 144.

\***albihirta** *albihirta* Timberlake. South. Calif. On flowers of *Geraea* and *Melilotus*. (*Cockerellia*)

*Perdita albihirta albihirta* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 395, fig. 79. ♀ ♂.

\***albihirta** *geraeae* Timberlake. Calif., Nev. On flowers of *Geraea*, *Acamptopappus*, and *Larrea*. (*Cockerellia*)

*Perdita albihirta geraeae* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 396. ♀ ♂.

**albipennis** *albipennis* Cresson. N. Dak. to Tex., west to Idaho and Ariz. On flowers of *Helianthus*. (*Cockerellia*)

*Perdita albipennis helianthi* Cockerell. Syn. by Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 400, figs. 87, 159.

**albipennis** *helianthi* Cockerell. Syn. of *albipennis albipennis* Cresson.

**albipennis** *hyalina* Cresson. Raised to sp. rank.

\***albonotata** Timberlake. South. Calif. On flowers of *Stephanomeria* and *Eriogonum*. (*Procockerellia*)

*Perdita albonotata* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 403, figs. 91, 92, 161. ♀ ♂.

**albovittata** Cockerell. Mexico (Chihuahua, Coahuila, Durango). On flowers of *Verbesina*, *Baileya*, *Aplopappus*, *Heterotheca*, *Gutierrezia*, *Isocoma*, *Pectis*, *Cevallia*, *Coldenia*, and *Physalis*. (*Pentaperdita*)

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 411, figs. 105, 106, 168.

**amoena** Timberlake. Ariz. (Cochise Co.). (*Pentaperdita*)

*Perdita amoena* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 330, figs. 287, 288, 336. ♂.

**arcuata** *dinognatha* Cockerell, changed status. Nev., Ariz. On flowers of *Sphaeralcea*, *Eriogonum*, *Encelia*. Typical *arcuata* Fox occurs in Baja Calif. (*Macroteropsis*)

*Perdita dinognatha* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 968).

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 359, figs. 21, 22, 126.

\***arenaria** Timberlake. Calif. (Colo. Desert). On flowers of *Coldenia*. (*Heteroperdita*)

*Perdita arenaria* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 368, figs. 39, 40, 135. ♂ ♀.

\***argemones** Timberlake. Ariz. On flowers of *Argemone*. (*Pygoperdita*)

*Perdita argemones* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 309, figs. 261, 262, 327, 358. ♀ ♂.

\***arizonica** Timberlake. Ariz. (Oak Creek Canyon). (*Pygoperdita*)

*Perdita arizonica* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 310, figs. 263, 264, 328, 359. ♀ ♂.

**asteris** Cockerell. Tex. (*Hexaperdita*)

**aureovittata** *aureovittata* Cockerell, changed status. South Calif. (Riverside and Los Angeles Counties). On flowers of *Malacothrix*, *Layia*. (*Pygoperdita*)



- Perdita aureovittata* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 285, figs. 221, 222, 311, 337).
- \**aureovittata maderensis* Timberlake. South. Calif. (Madera, Santa Barbara, and Kern Counties). On flowers of *Malacothrix*. (*Pygoperdita*)
- Perdita aureovittata maderensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 286. ♀ ♂.
- \**aureovittata stenozone* Timberlake. Calif. (San Benito Co.). (*Pygoperdita*)
- Perdita aureovittata stenozone* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 286. ♀ ♂.
- baileyae* Cockerell. Syn. of *perpulchra perpulchra* Cockerell.
- beata* Cockerell. Tex. (El Paso). (*Cockerellia*)
- \**bebbiae* Timberlake. Calif. (San Diego Co.). On flowers of *Bebbia*. (*Hexaperdita*)
- Perdita bebbiae* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 255, figs. 179, 180, 292. ♀ ♂.
- \**bellula* Timberlake. Calif. (Colo. Desert). On flowers of *Coldenia*. (*Heteroperdita*)
- Perdita bellula* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 369, figs. 41, 42, 136. ♂ ♀.
- bequaerti bequaerti* Viereck, changed status. N. J., N. C., Ga., Ala., Miss. (*Cockerellia*)
- Perdita bequaerti* Viereck of Catalog, in part (*teste* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 397, figs. 80, 157).
- bequaerti indianensis* Cockerell, changed status. Ind., Okla. (*Cockerellia*)
- Perdita lacteipennis indianensis* Cockerell. Incorrectly placed under *lacteipennis* (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).
- Perdita bequaerti* Viereck of Catalog, in part (*Perdita wickhami* Cockerell is a syn. of *bequaerti indianensis*, *teste* Timberlake, *loc. cit. supra*).
- bequaertiana* Cockerell. On flowers of *Oenothera*. (*Xerophasma*)
- Taxonomy: Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 962.—Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 349, figs. 1, 2, 115.
- \**bidenticauda* Timberlake. Tex. (Big Bend Park). On flowers of *Opuntia*. (*Cockerellula*)
- Perdita bidenticauda* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 965. ♂ ♀.
- Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 356, figs. 13, 14, 122.
- \**bilobata* Timberlake. Calif. (Inyo and San Bernardino Counties). On flowers of *Calochortus*, *Ericameria*. (*Pygoperdita*)
- Perdita bilobata* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 305, figs. 253, 254, 354. ♀ ♂.
- \**binotata* Timberlake. Ariz.; Baja Calif. On flowers of *Physalis*. (*Epimacrotera*)
- Perdita binotata* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 385, figs. 73, 74, 153. ♀ ♂.
- bishoppi bishoppi* Cockerell, changed status. Gulf Coast from Tex. to Fla., Ga., S. C. On flowers of *Isopappus*. (*Hexaperdita*)
- Perdita bishoppi* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 261, figs. 193, 194, 299).
- \**bishoppi planorum* Timberlake. Kans., Tex. On flowers of *Heterotheca*, *Isopappus*. (*Hexaperdita*)
- Perdita bishoppi planorum* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 261. ♀ ♂.
- \**dispinata* Timberlake. Calif. (San Bernardino and Riverside Counties). On flowers of *Calochortus*, *Ericameria*. (*Pygoperdita*)

- Perdita bispinata* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 303, figs. 249, 250, 323, 352. ♀ ♂.
- \**blaisdelli* Timberlake. Calif. (Calaveras Co.). (*Glossoperdita*)  
*Perdita blaisdelli* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 373. ♀.
- \**blatchleyi* Timberlake. Fla. (Dunedin). (*Hexaperdita*)  
*Perdita blatchleyi* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 201. ♀.
- \**bohartorum* Timberlake. Calif. (Mono Co.). (*Pygoperdita*)  
*Perdita bohartorum* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 319, figs. 275, 276, 365. ♀ ♂.
- boltoniae boltoniae* (Robertson), changed status. Ill., La., Miss. (*Hexaperdita*)  
*Perdita boltoniae* (Robertson). Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 265).
- boltoniae chrysopsina* Timberlake, changed status. N. Y. to Fla. (*Hexaperdita*)  
*Perdita chrysopsina* Timberlake. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 265, figs. 199, 200, 302).
- \**bradleyana* Timberlake. Tex. (El Paso). (*Pentaperdita*)  
*Perdita bradleyana* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 409, figs. 99, 100, 165. ♂.  
 Taxonomy: Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 329. ♀.
- californica* (Cresson). Coastal Calif., Mt. Diablo, south; Mexico (Baja Calif.). On flowers of *Calochortus*, *Cryptantha*, *Eriogonum*, *Eriodictyon*, *Opuntia*. (*Pygoperdita*)
- callicerata* Cockerell. Tex. to south. Calif.; Mexico (Chihuahua, Durango). On flowers of *Dithyrea*, *Isocoma*, *Baileya*, *Baccharis*. (*Hexaperdita*)  
*Perdita lutzi* Cockerell (syn. by Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 255, figs. 181, 182, 293).
- \**calochorti* Timberlake. Calif. (San Bernardino and Inyo Counties). On flowers of *Calochortus*. (*Pygoperdita*)  
*Perdita calochorti* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 299, figs. 239, 240, 320, 347. ♀ ♂.
- cambarella cambarella* Cockerell, changed status. On flowers of *Isopappus*, *Croptilon*. (*Hexaperdita*)  
*Perdita cambarella* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 256).
- cambarella platyura* Cockerell, changed status. On flowers of *Isopappus*, *Heterotheca*. (*Hexaperdita*)  
*Perdita platyura* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 257, figs. 183, 184, 294).
- \**carolina* Timberlake. N. C., Tex. On flowers of *Batodendron*, *Diospyros*, *Stillingia*. (*Alloperdita*)  
*Perdita carolina* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 199. ♀ ♂.
- cephalotes* (Cresson). Calif. (Morongo). On flowers of *Gutierrezia*. (*Xeromacrotera*)  
 Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 413, figs. 109, 110, 170.
- chrysophila* Cockerell. (*Pentaperdita*)  
 Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 406, figs. 93, 94, 162.
- chrysopsina* Timberlake. A subsp. of *boltoniae* (Robertson).
- citrinella* Graenicher. A subsp. of *perpallida* Cockerell.
- cladothricis* Cockerell. West. Tex.; Ariz.; Mexico (Baja Calif., Sonora, Zacatecas). (*Perditella*)

- \**coahuilensis* Timberlake. Tex. (El Paso); Mexico (Coahuila). (*Pentaperdita*)  
*Perdita coahuilensis* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 409, figs. 101, 102, 166. ♀ ♂.
- \**coalingensis* Timberlake. Calif. (Coalinga). On flowers of *Eschscholtzia*. (*Pygoperdita*)  
*Perdita coalingensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 313. ♀.
- \**coldeniae* Timberlake. Calif. (Colo. Desert). On flowers of *Coldenia* and *Pectis*. (*Heteroperdita*)  
*Perdita coldeniae* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 368, figs. 37, 38, 134. ♂ ♀.
- consobrina consobrina* Timberlake, changed status. N. C. On flowers of *Chrysopsis*.  
*Perdita consobrina* Timberlake. Reduced to subsp. rank (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 202).
- \**consobrina lepida* Timberlake. Fla. (Dunedin, Lake Worth).  
*Perdita consobrina lepida* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 203. ♀ ♂.
- coreopsidis collaris* Cockerell, changed status. N. Mex.; Mexico (Chihuahua). (*Cockerellia*)  
*Perdita verbesinae collaris* Cockerell. Incorrectly placed under *verbesinae* Cockerell (*teste* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 401. ♂ ♀).
- coreopsidis coreopsidis* Cockerell, changed status. Kans., Tex.; Mexico (Coahuila). On flowers of *Gaillardia* and *Monarda*. (*Cockerellia*)  
*Perdita coreopsidis* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 983).
- \**coreopsidis kansensis* Timberlake. Kans., Tex. On flowers of *Gaillardia*. (*Cockerellia*)  
*Perdita coreopsidis kansensis* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 984. ♀ ♂.
- \**coreopsidis obscurior* Timberlake. Gulf Coast of Tex. On flowers of *Gaillardia*. (*Cockerellia*)  
*Perdita coreopsidis obscurior* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 984. ♀ ♂.
- \**cowaniae* Timberlake. Calif. (Inyo Co.). On flowers of *Cowania*, *Calochortus*. (*Pygoperdita*)  
*Perdita cowaniae* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 315, figs. 269, 270, 331, 362. ♀ ♂.
- crassiceps* Cockerell. (*Hexaperdita*)
- crawfordi* Cockerell. A subsp. of *ignota* Cockerell.
- dinognatha* Cockerell. A subsp. of *arcuata* Fox.
- \**discreta* Timberlake. N. C. (Holly Shelter).  
*Perdita discreta* Timberlake, 1954. Ent. News 65: 14. ♀.
- \**distropica* Timberlake. Calif. (Monterey, San Benito, and Santa Clara Counties). On flowers of *Calochortus*, *Eschscholtzia*, *Eriogonum*. (*Pygoperdita*)  
*Perdita distropica* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 312, figs. 265, 266, 329, 360. ♀ ♂.
- \**diversa* Timberlake. Tex. (El Paso); Mexico (Coahuila, Nuevo Leon). On flowers of *Coldenia*. (*Epimacrotera*)  
*Perdita diversa* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 384, figs. 69, 70, 151. ♂ ♀.
- \**duplonotata* Timberlake. Utah, Nev. On flowers of *Fallugia*. (*Pygoperdita*)  
*Perdita duplonotata* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 307, figs. 257, 258, 356. ♀ ♂.



- \**echinocacti* Timberlake. Ariz.; Mexico (Sonora). On flowers of *Echinocactus* and *Kallstroemia*. (*Macroteropsis*)  
*Perdita echinocacti* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 360, figs. 25, 26, 128. ♂ ♀.
- erionomi* Cockerell. On flowers of *Eriogonum*. (*Pygoperdita*)
- \**euphorbiae* Timberlake. Ariz. (Picacho Pass). On flowers of *Euphorbia*. (*Epimacrotera*)  
*Perdita euphorbiae* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 380, figs. 59, 60, 146. ♀ ♂.
- \**fallugiae* Timberlake. Nev. (Charleston Mts.). On flowers of *Fallugia*, *Hymenoxys*, *Calochortus*. (*Pygoperdita*)  
*Perdita fallugiae* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 314, figs. 267, 268, 330, 361. ♀ ♂.
- fedorensis* Cockerell. (*Hexaperdita*)
- \**fieldi* Timberlake. South. Calif. On flowers of *Adenostoma*, *Eriogonum*, *Calochortus*. (*Pygoperdita*)  
*Perdita fieldi* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 291, figs. 227, 228, 315, 340. ♀ ♂.
- floridensis* Timberlake. N. C. On flowers of *Batodendron*. (*Alloperdita*)
- \**foveata brachycephala* Timberlake. Tex. On flowers of *Aphanostephus*, *Coreopsis*, *Aster*. (*Hexaperdita*)  
*Perdita foveata brachycephala* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 266. ♀ ♂.
- \**foveata foveata* Timberlake. Ark., Kans. (*Hexaperdita*)  
*Perdita foveata foveata* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 265, figs. 201, 202, 303. ♀ ♂.
- \**foveata persimilis* Timberlake. N. Mex. (Chaves Co.). (*Hexaperdita*)  
*Perdita foveata persimilis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 267. ♀ ♂.
- \**fracticincta* Timberlake. Tex. (Sarita). On flowers of *Coreopsis*. (*Cockerellia*)  
*Perdita fracticincta* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 976. ♀.
- georgica* Timberlake. S. C., N. C. On flowers of *Aster*, *Chrysopsis*. (*Hexaperdita*)
- gerhardi monardae* Viereck, changed status.  
*Perdita monardae* Viereck. Reduced to subsp. rank (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).
- \**giliae* Timberlake. Ariz. On flowers of *Gilia*. (*Glossoperdita*)  
*Perdita giliae* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 374, figs. 51, 52, 141. ♀ ♂.
- graenicheri* Timberlake. On flowers of *Chrysopsis*. (*Hexaperdita*)
- heliophila* Cockerell. Utah. On flowers of *Helianthus*. (*Cockerellia*)  
 Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 397, figs. 82, 83, 158.
- heterothecae* Cockerell. Mexico (Baja Calif.). On flowers of *Aster*, *Gutierrezia*. (*Hexaperdita*)
- \**hurdi* Timberlake. South. Calif., Ariz. On flowers of *Proboscidea*. (*Glossoperdita*)  
*Perdita hurdi* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 324, figs. 283, 284, 335. ♀ ♂.
- hyalina* Cresson, changed status. (*Cockerellia*)  
*Perdita albipennis hyalina* Cresson. Raised to sp. rank (*teste* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 397).
- ignota crawfordi* Cockerell, changed status. Colo., Nebr., Kans., Okla., Mo. On flowers of *Grindelia*, *Heterotheca*, *Isopappus*, *Prionopsis*, *Sideranthus*, *Chrysopsis*. (*Hexaperdita*)

- Perdita crawfordi* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 262, figs. 195, 196, 300).
- ignota ignota* Cockerell, changed status. Colo., Ariz., Tex.; Mexico (Chihuahua). On flowers of *Erigeron*, *Heterotheca*, *Chrysopsis*, *Solidago*, *Baccharis*. (*Hexaperdita*)
- Perdita ignota* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 262).
- ignota isopappi* Timberlake, changed status. East. Tex., La. On flowers of *Isopappus*, *Chrysopsis*, *Heterotheca*, *Aster*, *Chrysanthemum*, *Aphanostephus*, *Xanthisma*, *Prionopsis*, *Grindelia*, *Helenium*. (*Hexaperdita*)
- Perdita isopappi* Timberlake. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 263).
- \**inflexa* Timberlake. Calif. (Riverside Co.). On flowers of *Eschscholtzia*. (*Pygoperdita*)
- Perdita inflexa* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 298, figs. 237, 238, 345, 346. ♂.
- interrupta interrupta* Cresson, changed status. Calif. (Los Angeles, Riverside and San Bernardino Counties). On flowers of *Eschscholtzia*, *Cryptantha*. (*Pygoperdita*)
- Perdita interrupta* Cresson. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 292, figs. 229, 230, 316, 341).
- \**interrupta kernensis* Timberlake. Calif. (Kern Co.). On flowers of *Cryptantha*. (*Pygoperdita*)
- Perdita interrupta kernensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 293. ♀ ♂.
- \**interrupta vernalis* Timberlake. Calif. (San Diego Co.). (*Pygoperdita*)
- Perdita interrupta vernalis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 293. ♀ ♂.
- isopappi* Timberlake. A subsp. of *ignota* Cockerell.
- lacteipennis canadensis* Crawford. Utah. (*Cockerellia*)
- lacteipennis indianensis* Cockerell. A subsp. of *bequaerti* Viereck.
- lacteipennis lacteipennis* Swenk and Cockerell, changed status. Tex., Kans., N. Dak., Colo., Wyo. Remove *Perdita pallidipennis*, a valid subsp., from syn. (*Cockerellia*)
- lacteipennis pallidipennis* Graenicher, changed status. Wis., Ill., east. Kans., and Nebr. (*Cockerellia*)
- Perdita lacteipennis lacteipennis* Swenk and Cockerell of Catalog, in part. *Perdita pallidipennis* Graenicher a valid subsp. of *lacteipennis*, not a syn. of typical *lacteipennis* (*teste* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 978).
- larreae* Cockerell. South. Calif.; Mexico (Baja Calif., Coahuila, Chihuahua). On flowers of *Tamarix*, *Pectis*, *Euphorbia*, *Eriogonum*, *Croton*, *Dicraurus*, *Asclepias*. (*Perditella*)
- Perdita larrearum* Cockerell (syn. by Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 263, figs. 203, 204, 304).
- larrearum* Cockerell. Syn. of *larreae* Cockerell.
- \**laticauda* Timberlake. Tex. (Dryden); Mexico (Coahuila). On flowers of *Gilia* and *Chamaesaracha*. (*Cockerellula*)
- Perdita laticauda* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 967. ♂ ♀. Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 356, figs. 15, 16, 123.
- laticauda* Cockerell. Nev. On flowers of *Sida*. (*Macroteropsis*)
- Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 359, figs. 23, 24, 127.
- \**layiae excisa* Timberlake. South. Calif. On flowers of *Layia*, *Chaenactis*. (*Pygoperdita*)

*Perdita layiae excisa* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 288.  
♀ ♂.

*layiae layiae* Cockerell. (*Pygoperdita*)

*lepachidis lepachidis* Cockerell, changed status. Kans., Tex., Colo., N. Mex.  
(*Cockerellia*)

*Perdita lepachidis* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 982).

\**lepachidis levifrons* Timberlake. Tex. (Brownsville). (*Cockerellia*)

*Perdita lepachidis levifrons* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 983. ♀ ♂.

\**leucostoma* Timberlake. Calif. (Inyo Co.). On flowers of *Calochortus*.  
(*Pygoperdita*)

*Perdita leucostoma* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 300, figs. 241, 242, 321, 348. ♀ ♂.

\**lobata* Timberlake. Tex. (Hidalgo Co.). On flowers of *Opuntia*. (*Cockerellula*)

*Perdita lobata* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 967. ♂.  
Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 356, figs. 17, 18, 124.

*lutzi* Cockerell. Syn. of *callicerata* Cockerell.

*macrostoma* Cockerell. (*Pygoperdita*)

*maculigera bilineata* Timberlake, changed status. Ill.

*Perdita maculipennis bilineata* Timberlake. A subsp. of *maculigera*, not of *maculipennis* (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).

*maculigera maculigera* Cockerell, changed status.

*Perdita maculigera* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).

*maculigera maculipennis* Graenicher, changed status.

*Perdita maculipennis maculipennis* Graenicher. A subsp. of *maculigera* Cockerell (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).

\**malacothricis* Timberlake. South. Calif. deserts, Nev. On flowers of *Mala-cothrix*, *Chaenactis*, *Stephanomeria*, *Larrea*, *Aster*. (*Pygoperdita*)

*Perdita malacothricis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 289, figs. 225, 226, 314, 339. ♀ ♂.

\**mandibularis* Timberlake. South. Calif. On flowers of *Geraea*, *Chaenactis*, and *Dalea*. (*Pentaperdita*)

*Perdita mandibularis* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 411, figs. 107, 108, 169. ♀ ♂.

*marcialis* Cockerell. West. Tex. to south. Calif., Nev.; Mexico (Coahuila, Sonora). On flowers of *Aloysia*, *Chrysothamnus*, *Eriogonum*.  
(*Perditella*)

*melanochlora* Cockerell. Calif., Nev. On flowers of *Encelia*, *Bebbia*, *Viguiera*, *Sphaeralcea*, *Baileya*. (*Pentaperdita*)

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 408, figs. 97, 98, 164. ♀ ♂.

\**mellea* Timberlake. Ariz., Calif.; Baja Calif. On flowers of *Euphorbia*.  
(*Macroterella*)

*Perdita mellea* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 364, figs. 33, 34, 132. ♂ ♀.

*mellina* Cockerell. N. Mex., Tex. (*Hexaperdita*)

\**micheneri micheneri* Timberlake. South. Calif. On flowers *Rhamnus*, *Cryptantha*, *Ceanothus*. (*Pygoperdita*)

*Perdita micheneri micheneri* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 294, figs. 231, 232, 317, 342. ♀ ♂.



- \***micheneri rhamnophila** Timberlake. Calif. (Rock Creek in San Gabriel Mts.) On flowers of *Rhamnus*. (*Pygoperdita*)  
*Perdita micheneri rhamnophila* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 295. ♂.
- minima** Cockerell. Mexico (Baja Calif.). (*Perditella*)
- mittelli** Timberlake. Ala. On flowers of *Cyrilla*. (*Alloperdita*)
- \***mohavensis** Timberlake. South. Calif. deserts. On flowers of *Eschscholtzia*, *Larrea*, *Chaenactis*, *Monardella*, *Hyptis*, *Salvia*. (*Pygoperdita*)  
*Perdita mohavensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 306, figs. 255, 256, 325, 355. ♀ ♂.
- monardae** Viereck. A subsp. of **gerhardi** Viereck.
- \***montereyensis** Timberlake. Calif. (Monterey Co.). On flowers of *Eschscholtzia*, *Calochortus*, *Eriogonum*. (*Pygoperdita*)  
*Perdita montereyensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 302, figs. 245, 246, 350. ♀ ♂.
- \***mormonica** Timberlake. Utah (Tooele Co.). On flowers of *Sphaeralcea*. (*Pygoperdita*)  
*Perdita mormonica* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 311. ♀.
- \***mortuaria** Timberlake. South. Calif., Ariz. On flowers of *Eucnide* and *Eschscholtzia*. (*Macroterella*)  
*Perdita mortuaria* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 362, figs. 27, 28, 129. ♂ ♀.
- \***mucronata** Timberlake. Calif. (Riverside Co.). On flowers of *Eschscholtzia*. (*Pygoperdita*)  
*Perdita mucronata* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 297, figs. 235, 236, 318, 344. ♂.
- \***namatophila** Timberlake. Calif. (Riverside Co.). On flowers of *Nama*. (*Epimacrotera*)  
*Perdita namatophila* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 379, figs. 57, 58, 145. ♂.
- \***nevadensis culbertsoni** Timberlake. Calif. (Tulare, Santa Cruz Counties, Yosemite Natl. Pk.). (*Pygoperdita*)  
*Perdita nevadensis culbertsoni* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 318. ♀ ♂.
- \***nevadensis molina** Timberlake. Calif. (San Bernardino Co.). (*Pygoperdita*)  
*Perdita nevadensis molina* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 318, figs. 273, 274, 364. ♀ ♂.
- nevadensis nevadensis** Cockerell, changed status. North. Calif., Oreg., Wash. On flowers *Eriogonum*. (*Pygoperdita*)  
*Perdita nevadensis* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 316, figs. 271, 272, 332, 363).  
*Perdita nigricollis* Timberlake (syn. by Timberlake, *loc. cit. supra*).
- \***nigrella** Timberlake. South. Calif. On flowers of *Phacelia*. (*Macroterella*)  
*Perdita nigrella* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 362, figs. 29, 30, 130. ♂ ♀.
- nigricollis** Timberlake. Syn. of **nevadensis nevadensis** Cockerell.
- \***nigrifacies** Timberlake. Ariz. (Safford). (*Pentaperdita*)  
*Perdita nigrifacies* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 406. ♀.
- \***nigrocaerulea** Timberlake. Calif. (Oro Grande Wash). On flowers of *Salazaria*. (*Epimacrotera*)  
*Perdita nigrocaerulea* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 382, figs. 65, 66, 149. ♂.
- \***nigroviridis** Timberlake. Tex. (Bexar and Live Oak Counties). (*Pentaperdita*)  
*Perdita nigroviridis* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 407, figs. 95, 96, 163. ♀ ♂.

- \***nitens** Timberlake. Calif. (Stanislaus, Santa Clara, and Mendocino Counties). On flowers of *Phacelia*, *Eschscholtzia*, *Eriogonum*. (*Pygoperdita*)  
*Perdita nitens* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 295, figs. 233, 234, 343. ♀ ♂.
- novae-angliae** Viereck. N. C. (*Alloperdita*)  
**obscurata** Cresson. On flowers of *Sarracenia*. (*Alloperdita*)
- \***opacella** Timberlake. Ariz. (Marble Canyon). (*Macroterella*)  
*Perdita opacella* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 324. ♀.
- \***optiva** Timberlake. Calif. (Colo. Desert). On flowers of *Coldenia*. (*Heteroperdita*)  
*Perdita optiva* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 371, figs. 47, 48, 139. ♂ ♀.
- opuntiae** Cockerell. S. Dak. (*Cockerellula*)  
 Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 355, figs. 9, 10, 120.
- \***pallida** Timberlake. Calif., Ariz. On flowers of *Oenothera*. (*Xerophasma*)  
*Perdita pallida* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 349. ♀ ♂.
- \***peculiaris** Timberlake. Tex. (Terrell Co.) On flowers of *Chamaesaracha*. (*Epimacrotera*)  
*Perdita peculiaris* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 970. ♂.  
 Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 384, figs. 71, 72, 152.
- pelargoides** (Cockerell). On flowers of *Navarretia*. (*Glossoperdita*)  
 Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 373, figs. 49, 50, 140. ♂.
- perpallida citrinella** Graenicher, changed status.  
*Perdita citrinella* Graenicher. Reduced to subsp. rank (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).
- perpallida perpallida** Cockerell, changed status.  
*Perdita perpallida* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1952. Ent. Soc. Wash. Proc. 54: 204).
- \***perpulchra flavidior** Timberlake. Kans., Tex. On flowers of *Heterotheca*, *Aphanostephus*, *Rudbeckia*. (*Cockerellia*)  
*Perdita perpulchra flavidior* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 975. ♀.
- perpulchra perpulchra** Cockerell, changed status. Ariz., Tex. On flowers of *Erigeron*. (*Cockerellia*)  
*Perdita perpulchra* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 975. ♀).  
*Perdita baileyae* Cockerell (syn. by Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 327).
- \***perpulchra punctissima** Timberlake. Tex. (Bexar, Wood, Robertson, Lamar Counties). On flowers of *Heterotheca*. (*Cockerellia*)  
*Perdita perpulchra punctissima* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 327. ♀ ♂.
- platyura** Cockerell. A subsp. of **cambarella** Cockerell.
- \***polycarpae** Timberlake. South Calif.; Baja Calif. On flowers of *Euphorbia* and *Pectis*. (*Epimacrotera*)  
*Perdita polycarpae* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 381, figs. 61, 62, 147. ♂ ♀.
- \***polygonellae** Timberlake. N. C. (Holly Shelter). On flowers of *Polygonella*.  
*Perdita polygonellae* Timberlake, 1954. Ent. News 65: 12. ♀ ♂.
- \***portalis** Timberlake. Ariz. (Portal). On flowers of *Sphaeralcea*. (*Macroteropsis*)  
*Perdita portalis* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 357, figs. 19, 20, 125. ♂ ♀.

- pratti** Cockerell. Okla., Kans. On flowers of *Helianthus*, *Heterotheca*, *Prionopsis*. (*Hexaperdita*)  
Taxonomy: Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 252, figs. 173, 174, 289. ♂.
- \***pulchella** Timberlake. Tex. (Carrizo Springs). (*Cockerellia*)  
*Perdita pulchella* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 393. ♀.
- \***purpurascens** Timberlake. Tex. (Fedor). (*Cockerellia*)  
*Perdita purpurascens* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 328. ♂.
- pyrifera** Cockerell. (*Hesperoperdita*)  
Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 376, fig. 142. ♂.
- \***quadrisignata** Timberlake. Calif. (Santa Cruz, San Benito, and Stanislaus Counties). On flowers of *Baccharis*. (*Pygoperdita*)  
*Perdita quadrisignata* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 296. ♀.
- \***rhodogastra** Timberlake. Calif. (Colo. Desert). On flowers of *Coldenia*, *Heliotropium*, *Pluchea*, *Pectis*. (*Heteroperdita*)  
*Perdita rhodogastra* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 367, figs. 35, 36, 133. ♀ ♂.
- \***robustula** Timberlake. South. Calif. On flowers of *Prosopis*, *Eschscholtzia*, *Agave*, *Argemone*, *Stanleya*. (*Pygoperdita*)  
*Perdita robustula* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 308, figs. 259, 260, 326, 357. ♀ ♂.
- \***ruficauda ornata** Timberlake. North. Calif. On flowers of *Lotus*. (*Hesperoperdita*)  
*Perdita ruficauda ornata* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 377. ♀ ♂.
- ruficauda ruficauda** Cockerell, changed status. South. Calif.; Baja Calif. (*Hesperoperdita*)  
*Perdita ruficauda* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 376, figs. 53, 54, 143).
- \***santaclarensis** Timberlake. Calif. (Santa Clara Co.). (*Pygoperdita*)  
*Perdita santaclarensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 314. ♀.
- \***scopata** Timberlake. Gulf Coast of Tex. On flowers of *Coreopsis* and *Helianthus*. (*Cockerellia*)  
*Perdita scopata* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 980. ♀ ♂.  
Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 401, fig. 88.
- \***sculleni sculleni** Timberlake. Oreg., Wash. (*Pygoperdita*)  
*Perdita sculleni sculleni* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 320, figs. 277, 278, 333, 366. ♀ ♂.
- \***sculleni segona** Timberlake. Utah, Wyo., Nev. On flowers of *Calochortus*. (*Pygoperdita*)  
*Perdita sculleni segona* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 322. ♀ ♂.
- \***sexfasciata** Timberlake. Calif. (Riverside Co.). On flowers of *Coldenia*. (*Heteroperdita*)  
*Perdita sexfasciata* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 370, figs. 43, 44, 137. ♂.
- \***shinnersi** Timberlake. Tex. On flowers of *Coreopsis*, *Hymenopappus*, *Brazoria*. (*Cockerellia*)  
*Perdita shinnersi* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 326. ♀ ♂.
- solitaria** Cockerell. (*Macroterella*)
- \***stephanomeriae** Timberlake. Calif. (San Diego Co.). On flowers of *Stephanomeria*. (*Procockerellia*)



*Perdita stephanomeriae* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 404. ♀.

*swenki* Crawford. Mich.

*texana* (Cresson). N. Mex. On flowers of *Opuntia*. (*Macrotera*)

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 353, figs. 5, 6, 118.

\**transversa* Timberlake. Oreg. (Jackson Co.). (*Pygoperdita*)

*Perdita transversa* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 287, figs. 312. ♂.

\**tricincta* Timberlake. South. Tex. On flowers of *Helianthus*. (*Cockerellia*)

*Perdita tricincta* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 978. ♀ ♂.

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 400, fig. 86.

\**trifasciata* Timberlake. N. Mex. (White Sands). Mexico (Coahuila). (*Heteroperdita*)

*Perdita trifasciata* Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 969. ♂.

Taxonomy: Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 370, figs. 45, 46, 138. ♀.

*trisignata* Cockerell. (*Hesperoperdita*)

\**tristella* Timberlake. South. Calif. On flowers of *Eriogonum*, *Calochortus*, *Hugelia*, *Sphaeralcea*. (*Macroterella*)

*Perdita tristella* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 363, figs. 31, 32, 131. ♂ ♀.

\**tularensis* Timberlake. Calif. (Alpine, Tuolumne, and Mariposa Counties, south to Tehachapi Pass). On flowers of *Calochortus*. (*Pygoperdita*)

*Perdita tularensis* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 303, figs. 247, 248, 351. ♀ ♂.

\**turgiceps* Timberlake. Calif., Ariz.; Baja Calif. On flowers of *Acacia*, *Cercidium*, *Eriogonum*, *Prosopis*, *Eriodictyon*, *Cryptantha*, *Dalea*, *Larrea*, *Hyptis*, *Cowania*, *Baeria*. (*Pseudomacrotera*)

*Perdita turgiceps* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 350, figs. 3, 4, 116, 117. ♂ ♀.

*utahensis* Cockerell. Ariz., Calif. On flowers of *Verbesina*. (*Cockerellia*)

Taxonomy: Timberlake, 1953. Kans. Univ. Sci. Bul. 35: 974. ♂.—Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 394, figs. 76, 155.

*vagans* Cockerell. (*Hexaperdita*)

\**vandykei* Timberlake. Calif. (Monterey Co.). On flowers of *Taraxacum*. (*Pygoperdita*)

*Perdita vandykei* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 286. ♀ ♂.

*verbesinae collaris* Cockerell. A subsp. of *coreopsidis* Cockerell.

*verbesinae* Cockerell, changed status. On flowers of *Verbesina*. (*Cockerellia*)

*Perdita verbesinae verbesinae* Cockerell. Raised to sp. rank (*teste* Timberlake, 1954. Calif. Univ. Pubs. Ent. 9: 397, fig. 81).

*vespertilio* Cockerell. (*Hexaperdita*)

*xanthismae* Cockerell, changed status. Kans. On flowers of *Heterotheca*, *Prionopsis*, *Croton*, *Helianthus*. (*Hexaperdita*)

*Perdita xanthismae xanthismae* Cockerell. Raised to sp. rank (*teste* Timberlake, 1956. Calif. Univ. Pubs. Ent. 11: 258, figs. 187, 188, 296).

*Perdita xanthismae sideranthi* Cockerell. (Syn. by Timberlake, *loc. cit. supra.*)

*xanthismae sideranthi* Cockerell. Syn. of *xanthismae* Cockerell.

**Genus PANURGINUS Nylander, pp. 1097-1098****melanocephalus** (Cockerell).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1036, figs. 86-88 (larva).

**PSEUDOPANURGUS subgenus PSEUDOPANURGUS Cockerell, p. 1098****aethiops** (Cresson). Ariz.**PSEUDOPANURGUS subgenus HETEROSARUS Robertson, pp. 1098-1101****abdominalis tricolor** (Cockerell). N. C.**Genus NOMADOPSIS Ashmead, pp. 1101-1102**\***barbata** Timberlake. South. Calif. On flowers of *Phacelia* and *Cryptantha*.  
*Nomadopsis barbata* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 107.  
♂ ♀.\***callosa** Timberlake. Tex. (El Paso Co.)  
*Nomadopsis callosa* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 110. ♂.**euphorbiae** (Cockerell).  
Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1036, figs. 99, 106-108 (larva).\***foleyi** Timberlake. Calif. (San Bernardino Co.). On flowers of *Larrea*.  
*Nomadopsis foleyi* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 112.  
♀ ♂.\***fracta** Rozen. Calif. (Palm Springs). On flowers of *Eriodictyon* and *Cryptantha*.  
*Nomadopsis fracta* Rozen, 1952. Kans. Ent. Soc. Jour. 25: 144, 4 figs.  
♂ ♀.  
Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1036, figs. 92-98 (larva).**hesperia equina** (Cockerell). Nev.\***larreae** Timberlake. Calif. (Thousand Palms). On flowers of *Larrea*.  
*Nomadopsis larreae* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 111. ♀.\***mellipes** Timberlake. South. Calif. On flowers of *Lotus*, *Encelia*, *Oenothera*.  
*Nomadopsis mellipes* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 109.  
♂ ♀.\***nigromaculata** Timberlake. South. Calif. On flowers of *Euphorbia*, *Pectis*, *Eriogonum*.  
*Nomadopsis nigromaculata* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 115. ♀ ♂.\***phaceliae** Timberlake. Calif. (Cartago). On flowers of *Phacelia*.  
*Nomadopsis phaceliae* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 116. ♂.\***trifolii** Timberlake. Calif. On flowers of *Trifolium* and *Mimulus*.  
*Nomadopsis trifolii* Timberlake, 1952. Ent. Soc. Amer. Ann. 45: 113.  
♀ ♂.**CALLIOPSIS subgenus CALLIOPSIS Smith, p. 1103****andreniformis** Smith.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1038, figs. 100-105 (larva).

**\*Genus XENOPANURGUS Michener****Xenopanurgus** Michener, 1952. Kans. Ent. Soc. Jour. 25: 24.Type: *Xenopanurgus readioi* Michener. Orig. desig.Place in Panurginae after *Hypomacrotera* Cockerell and Porter, p. 1104.\***readioi** Michener. Ariz. (Huachuca Mts.).*Xenopanurgus readioi* Michener, 1952. Kans. Ent. Soc. Jour. 25: 25, 5 figs. ♂.

## Family HALICTIDAE

## HALICTUS subgenus SELADONIA Robertson, p. 1105

*tripartitus* Cockerell.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1027, figs. 60, 61, 66, 67 (larva).

## LASIOGLOSSUM subgenus EYYLAEUS Robertson, pp. 1107-1110

*amicum* (Cockerell). Calif.*arcuatum arcuatum* (Robertson). Kans.*arizonense* (Crawford). Calif.*cooleyi* (Crawford). Tex.*gulosum* (Cockerell). Mass.*hammondi* (Cockerell). South. Calif.*kincaidii* (Cockerell).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1025, figs. 48-53 (larva).

*miguelense* (Cockerell). South. Calif.*pectoraloides* (Cockerell). Calif.*peraltum* (Cockerell). Wash.*truncatum* (Robertson). Kans.

## LASIOGLOSSUM subgenus SPHECODOGAstra Ashmead, p. 1111

*aberrans* (Crawford). Calif.*texanum* (Cresson).

Biology: Graenicher, 1911. Pub. Mus. City Milwaukee, Bul. 1: 222-225.

## LASIOGLOSSUM subgenus CHLORALICTUS Robertson, pp. 1111-1119

*brevibase* (Cockerell). Place before *bruneri* (Crawford).*graenicheri* (Ellis). Kans.*hyalinum* (Crawford). Ariz., Calif., Wash.*inconspicuum* (Smith).*Lasioglossum (Chloralictus) stultum* (Cresson), n. syn. (*teste* T. B. Mitchell based on exam. of types).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1027, figs. 54-56 (larva).

*kunzei* (Cockerell). Calif.*mesillense* (Cockerell). Calif., Nev.; Mexico (Hidalgo).*nevadense* (Crawford). Ariz.*pallidellum* (Ellis). Calif.*perparvum* (Ellis). Calif. deserts.*reticulatum* (Robertson).*Lasioglossum (Chloralictus) rhododactylum* (Dalla Torre), n. syn. (*teste* T. B. Mitchell, based on type exam. of *fulvipes* Smith).*rhododactylum* (Dalla Torre). Syn. of *reticulatum* (Robertson).*sedi* (Sandhouse). Calif., Oreg., Colo.*Halictus sedi* Sandhouse. Erroneously placed as a syn. of *veganum* (Cockerell) (*teste* P. H. Timberlake, *in litt.*).*stultum* (Cresson). Syn. of *inconspicuum* (Smith).*veganum* (Cockerell). Delete *sedi* Sandhouse from syn. and Colo. from range.



Genus **SPHECODES** Latreille, pp. 1120-1123

**arvensiformis** Cockerell. Host: *Halictus farinosus* Sm.

**arvensis** Patton. Syn. of **dichrous** Smith.

\***atlantis** Mitchell. Vt. and Mass. south to Fla., west to Tex., Ark., Tenn., Mich., Minn. On flowers of *Ceanothus*, *Batodendron*, *Hydrangea*.

*Sphecodes atlantis* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 221. ♀ ♂.

\***australis** Mitchell. Conn., N. Y., Va., N. C., Mich. On flowers of *Daucus*, *Ceanothus*, *Aruncus*.

*Sphecodes australis* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 213.

\***autumnalis** Mitchell. Ont., Mich., N. Y., N. C. On flowers of *Chrysopsis*, *Haplopappus*.

*Sphecodes autumnalis* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 209. ♀ ♂.

\***brachycephalus** Mitchell. N. C., Fla. Visiting flowers of *Asclepias*. Host: ? *Calliopsis andreniformis* Sm.

*Sphecodes brachycephalus* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 207. ♀ ♂.

\***canadensis** Mitchell. Que., Ont., N. C.

*Sphecodes canadensis* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 218. ♂.

\***carolinus** Mitchell. Maine to N. C., Tenn., Mich., Minn. On flowers of *Rubus*, *Chrysanthemum*, *Ceanothus*, *Acer*, *Aruncus*, *Hydrangea*.

*Sphecodes carolinus* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 219. ♀.

\***coronus** Mitchell. Mass. to N. C., Mich., Minn. On flowers of *Daucus*, *Solidago*, *Rhus*, *Hydrangea*, *Ceanothus*.

*Sphecodes coronus* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 215. ♂.

\***crawfordi** Mitchell. N. C. (Bryson City).

*Sphecodes crawfordi* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 217. ♀.

**dichrous** Smith.

*Sphecodes arvensis* Patton, n. syn. (*teste* T. B. Mitchell, based on exam. of types).

*Sphecodes lautus* Lovell and Cockerell, n. syn. (*teste* T. B. Mitchell, based on type exam.).

*Sphecodes macfarlandi* Viereck, n. syn. (*teste* T. B. Mitchell, based on type exam.).

**distolus** Lovell. Syn. of **pimpinellae** Robertson.

\***exaltus** Mitchell. N. C. (Southern Pines).

*Sphecodes exaltus* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 217. ♀.

\***fattigi** Mitchell. Fla. (Gainesville).

*Sphecodes fattigi* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 220. ♂.

**heterus** Lovell. Syn. of **mandibularis** Cresson.

\***hydrangeae** Mitchell. Conn., N. C. On flowers of *Hydrangea*.

*Sphecodes hydrangeae* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 214. ♂.

**lautus** Lovell and Cockerell. Syn. of **dichrous** Smith.

**macfarlandi** Viereck. Syn. of **dichrous** Smith.

**mandibularis** Cresson.

*Sphecodes nephelotus* Lovell and Cockerell, n. syn. (*teste* T. B. Mitchell, based on exam. of types).

*Sphecodes heterus* Lovell, n. syn. (*teste* T. B. Mitchell, based on exam. of type).

\**morsei* Mitchell. Vt., Minn.

*Sphecodes morsei* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 213. ♀.

*nephelotus* Lovell and Cockerell. Syn. of *mandibularis* Cresson.

\**nigricorpus* Mitchell. Conn. (Colebrook).

*Sphecodes nigricorpus* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 220. ♂.

\**packardi* Mitchell. Vt., N. H., Minn.

*Sphecodes packardi* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 216. ♂.

*pimpinellae* Robertson.

*Sphecodes distolus* Lovell, n. syn. (*teste* T. B. Mitchell, based on exam. of types).

\**texana* Cresson. Tex.

*Sphecodes texana* Cresson, 1872. Amer. Ent. Soc. Trans. 4: 249. ♀ ♂.

\**townesi* Mitchell. N. Y., N. C., Mich.

*Sphecodes townesi* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 212. ♀.

\**wheeleri* Mitchell. Conn., N. C. On flowers of *Leucanthemum*, *Hydrangea*.

*Sphecodes wheeleri* Mitchell, 1956. Elisha Mitchell Sci. Soc. Jour. 72: 210. ♀ ♂.

#### Genus AGAPOSTEMON Guérin-Ménéville, pp. 1123-1125

Taxonomy: Fischer, 1950. Kans. Ent. Soc. Jour. 23: 76-78 (distribution, flower preferences and seasonal flight range of Kansas spp.).

*angelicus angelicus* Cockerell. Wash.

*cockerelli* Crawford. Ariz.

*melliventris melliventris* Cresson. Reared from abandoned cells of *Sceliphron*.

*texanus californicus* Crawford. Cismontane Calif.; Baja Calif.

#### Genus AUGOCHLORA Smith, p. 1125

This group, considered a subgenus in the Catalog, was raised to generic rank by Michener, 1954 (Amer. Mus. Nat. Hist. Bul. 104: 59).

*pura* (Say).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1028, figs. 57-59, 64 (larva).

#### Genus AUGOCHLORELLA Sandhouse, pp. 1125-1126

*Pereirapis* Moure, 1943. Rev. d'Ent. 14: 461.

Type: *Pereirapis rhizophila* Moure. Orig. desig.

This group, considered a subgenus in the Catalog, was raised to generic rank and *Pereirapis* placed as a synonym by Michener, 1954 (Amer. Mus. Nat. Hist. Bul. 104: 55). Place parentheses around all author's names in the specific and subspecific headings.

*aurata* (Smith). N. Y. (L. I.).

*pomoniella pomoniella* (Cockerell). Reared from abandoned cells of *Sceliphron*.

#### Genus AUGOCHLOROPSIS Cockerell, p. 1126

\**Augochloropsis* subg. *Pseudaugochloropsis* Schrottky, 1906. Ztschr. System. Hym. Dipt. 6: 313.

Type: *Augochloropsis sthena* Schrottky. Desig. by Sandhouse, 1943.

\**Augochlora* subg. *Glyptobasis* Moure, 1940. Arq. Zool. Estado São Paulo 2: 48. Preocc.

Type: *Augochlora (Glyptobasis) chloëra* Moure. Orig. desig.

\**Glyptobasis* Moure, 1941. Arq. Mus. Paranaense 1: 98. N. name.

The categories listed above are synonyms or subgenera of *Augochloropsis* (teste Michener, 1954. Amer. Mus. Nat. Hist. Bul. 104: 84).

#### **NOMIA subgenus EPINOMIA Ashmead, p. 1127**

*nevadensis nevadensis* Cresson.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1029, figs. 68, 71, 72, 76 (larva).

#### **NOMIA subgenus ACUNOMIA Cockerell, pp. 1127-1128**

*melanderi melanderi* Cockerell. Correct spelling in sp. heading to emended form.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1031, figs. 69, 70, 73-75 (larva).

Biology: Bohart and Cross, 1955. Ent. Soc. Amer. Ann. 48: 403-406, 3 figs.

*nortoni* Cresson. Change spelling from *plebia* to *plebeia* in orig. cit.

#### **\*Genus PROTODUFOUREA Timberlake**

*Protodufourea* Timberlake, 1955. Pan-Pacific Ent. 31: 105.

Type: *Protodufourea wasbaueri* Timberlake. Orig. desig.

Place before *Micralictoides* Timberlake, p. 1130.

\**parca* Timberlake, Calif. (Riverside Co.).

*Protodufourea parca* Timberlake, 1955. Pan-Pacific Ent. 31: 106. ♂.

\**wasbaueri* Timberlake. Calif. (San Benito Co.). On flowers of *Emmenanthe*.

*Protodufourea wasbaueri* Timberlake, 1955. Pan-Pacific Ent. 31: 107.

♂ ♀.

### **Family MELITTIDAE**

#### **MELITTA subgenus MELITTA Kirby, p. 1134**

*wilmattae* Cockerell. Calif.

#### **HESPERAPIS subgenus HESPERAPIS Cockerell, p. 1134**

*rufipes* (Ashmead).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1040, figs. 281-287 (larva).

#### **HESPERAPIS subgenus PANURGOMIA Viereck, p. 1135**

*larreae* Cockerell. Calif. deserts.

*rhodocera* (Cockerell). Calif. deserts.

#### **MACROPIS subgenus MACROPIS Panzer, p. 1136**

*longilingua* Provancher. Change spelling in sp. heading and in orig. cit. from *longilinguis* to *longilingua*.

### **Family MEGACHILIDAE**

#### **LITHURGE subgenus LITHURGOPSIS Fox, pp. 1136-1137**

*bruesi* (Mitchell) Ill.

#### **Genus TRACHUSA Panzer, p. 1137**

*perdita* Cockerell.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1042, figs. 109-113, 117 (larva).



**ANTHIDIUM subgenus ANTHIDIUM Fabricius, pp. 1139-1143**

*paroselae* Cockerell. Calif. deserts.

*permaculatum permaculatum* Cockerell. Calif.

**Genus DIANTHIDIUM Cockerell, pp. 1143-1145**

*concinnum* (Cresson).

Biology: Fischer, 1951. Kans. Ent. Soc. Jour. 24: 46, figs. 1, 2.

*curvatum sayi* Cockerell. East. Calif.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1045, figs. 130-133 (larva).

Biology: Fischer, 1951. Kans. Ent. Soc. Jour. 24: 47-49.

*platyurum platyurum* Cockerell. Delete from Catalog; occurs only in Baja Calif. (*teste* P. H. Timberlake, *in litt.*).

*simile* (Cresson). Reared from partly rotted log.

*subparvum subparvum* Swenk. Calif.

**Genus ANTHIDIELLUM Cockerell, p. 1146**

*ehrhorni* (Cockerell).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1045, figs. 119, 123, 124, 127 (larva).

*notatum robertsoni* (Cockerell).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1046, figs. 121, 122, 128 (larva).

Biology: Leech, 1947. Ent. Soc. Brit. Col. Proc. 44: 39, 2 figs.

**STELIS subgenus MICROSTELIS Robertson, p. 1147**

*lateralis* Cresson. Calif. Host. *Hoplitis pilosifrons* (Cr.).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1048, figs. 114-116, 118 (larva).

Biology: Michener, 1955. Kans. Ent. Soc. Jour. 28: 83-86.

*montana* Cresson. Calif.

**Genus DIOXYS Lepeletier and Serville, pp. 1150-1151**

*aurifuscus* Titus). Change sp. heading from *aurifusca* to *aurifuscus*.

*pacificus* Cockerell. Change sp. heading from *pacifica* to *pacificus*.

*productus* (Cresson). Change sp. heading from *producta* to *productus*.

**Tribe MEGACHILINI**

Taxonomy: Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 1-248, 141 figs., 112 maps (Calif. spp. except of *Osmia*, *Megachile*, and *Coelioxys*).

**Genus CHELOSTOMA Latreille, p. 1151**

*cockerelli* Michener, changed status.

*Chelostoma minutum cockerelli* Michener. Raised to sp. rank (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 32).

*incisulum* Michener, changed status. U. Sonor. Zone of cent. Calif. On flowers of *Phacelia*.

*Chelostoma minutum incisulum* Michener. Raised to sp. rank (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 36).

\**marginatum incisuloides* Michener. Cent. Calif. On flowers of *Phacelia* and *Cryptantha*.

*Chelostoma marginatum incisuloides* Michener, 1954. Kans. Ent. Soc. Jour. 27: 69. ♂ ♀.

**marginatum marginatum** Michener, changed status. South Calif.

*Chelostoma minutum marginatum* Michener. The typical subsp. of **marginatum** (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 37).

**minutum** Crawford, changed status. Nev., Utah. Principally on flowers of *Phacelia*.

*Chelostoma minutum minutum* Crawford. Raised to sp. rank (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 34).

**minutum cockerelli** Michener. Raised to sp. rank.

**minutum incisulum** Michener. Raised to sp. rank.

**minutum marginatum** Michener. A subsp. of **marginatum** Michener.

**phaceliae** Michener. Nev.

#### Genus **PROCHELOSTOMA** Robertson, p. 1152

**philadelphia** (Robertson). Kans.

#### **HERIADES** subgenus **NEOTRYPTETES** Robertson, p. 1152

Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 27: 68-69 (rev. key to spp.).

**leavitti crawfordi** Graenicher. N. C. (New River).

**leavitti leavitti** Crawford. Ill., Nebr., Wyo., Tex.

\***microphalma** Michener. Deserts of west. Tex., N. Mex., Ariz., Utah.

*HeriaDES microphalma* Michener, 1954. Kans. Ent. Soc. Jour. 27: 66, 2 figs. ♀ ♂.

**variolora variolora** (Cresson). Nests in twigs of sumac.

Biology: Fischer, 1955. Canad. Ent. 87: 33-36.

#### **HERIADES** subgenus **PHYSOSTETHA** Michener, pp. 1152-1153

**carinata** Cresson. In reference to Biology, change p. 1 to pp. 39-40.

**cressoni** Michener. Nebr.

**gracilior** Cockerell. South. Nev. and south. Calif. On flowers of *Opuntia* and *Convolvulus*.

**timberlakei** Michener. Colo., Nev. On flowers of *Euphorbia*.

#### Genus **ASHMEADIELLA** Cockerell, pp. 1153-1156

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1051, figs. 134, 138, 139, 141 (larva).

#### **ASHMEADIELLA** subgenus **ASHMEADIELLA** Cockerell, pp. 1153-1155

**altadena** Michener. On flowers of *Lotus* and *Adenostoma*.

Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 27: 75. ♀.

**aridula aridula** Cockerell, changed status. Nev., Utah, Wyo. Visiting many flowers.

*Ashmeadiella (Ashmeadiella) meliloti aridula* Michener. A subsp. of **aridula** (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 183).

**aridula astragali** Cockerell, changed status. Oreg., ? Wyo. Visiting many flowers.

*Ashmeadiella (Ashmeadiella) meliloti astragali* Michener. A subsp. of **aridula** Cockerell (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 184).

**arizonensis** Michener. Syn. of **opuntiae** (Cockerell).

**bigeloviae** (Cockerell). Nev.; north. Mexico. Visiting many flowers.

**cactorum cactorum** (Cockerell). Mont., Wyo. On flowers of *Nama*, *Cryptantha*, *Dalea*, *Pentstemon*, *Asclepias*.

*Ashmeadiella (Ashmeadiella) cactorum echinocerei* Cockerell (syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 160).

- cactorum echinocerei* Cockerell. Syn. of *cactorum cactorum* (Cockerell).  
*californica californica* (Ashmead). Idaho, Nev. Visiting many flowers.  
*californica florissantensis* Michener. Idaho.  
*californica sierraensis* Michener. On flowers of *Aster*, *Solidago*, *Helianthus*.  
*difugita difugita* Michener, changed status. South. Calif. On flowers of *Eriodictyon*, *Verbena*, *Eriogonum*, *Phacelia*, *Gilia*, *Chrysopsis*.  
*Ashmeadiella* (*Ashmeadiella*) *difugita* Michener of Catalog, in part. Reduced to subsp. rank (*teste* Michener, 1951. Kans. Ent. Soc. Jour. 24: 53).  
 \**difugita emarginatula* Michener. Cent. and north. Calif., Oreg., Idaho, Nev. On flowers of *Eriogonum* and *Grindelia*.  
*Ashmeadiella difugita emarginatula* Michener, 1951. Kans. Ent. Soc. Jour. 24: 53. ♀.  
*femorata* (Michener). Nev. On flowers of *Dalea*, *Larrea*, *Cercidium*.  
*foveata* Michener. Ariz., Nev., Utah. On flowers of *Dalea*, *Phacelia*, *Erigeron*, *Monardella*, *Collinsia*, *Prosopis*, *Heliotropium*, *Helianthus*, *Lotus*, *Diplacus*.  
 Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 27: 74. ♂.  
 \**gillettei cismontanica* Michener. Calif. (Riverside, Fresno, Contra Costa Cos.). On flowers of *Heliotropium*, *Cryptantha*, *Melilotus*.  
*Ashmeadiella* (*Ashmeadiella*) *gillettei cismontanica* Michener, 1951. Pan-Pacific Ent. 27: 67. ♀.  
 Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 24: 52. ♂.  
*gillettei gillettei* Titus. S. Dak., Nebr. On flowers of *Sedum*.  
 \**gillettei rubra* Michener. Tex., N. Mex. On flowers of *Dalea*.  
*Ashmeadiella* (*Ashmeadiella*) *gillettei rubra* Michener, 1951. Pan-Pacific Ent. 27: 67. ♀ ♂.  
*gillettei rufiventris* Michener. Baja Calif. On flowers of *Heliotropium* and *Malacothrix*.  
*haematopoda* Cockerell. Syn. of *rufipes* Titus.  
*leucozona* Cockerell. Ariz. On flowers of *Teucrium* and *Cercidium*.  
*meliloti aridula* Cockerell. A subsp. of *aridula* Cockerell.  
*meliloti astragali* Michener. A subsp. of *aridula* Cockerell.  
*meliloti meliloti* (Cockerell). Visiting many flowers. Another subsp., *m. crassa* Cockerell, occurs in Baja Calif.  
*occipitalis* Michener. Mexico (Sonora, Baja Calif.).  
*opuntiae* (Cockerell). Utah. On flowers of *Echinocactus*, *Echinocereus*, *Viguiera*.  
*Ashmeadiella* (*Ashmeadiella*) *arizonensis* Michener (syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 192).  
*prosopidis* (Cockerell). Tex. Visiting many flowers.  
*Ashmeadiella* (*Ashmeadiella*) *schwarzi* Titus (syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 161).  
 \**rhodopus* Michener. Syn. of *rufipes* Titus.  
*rufipes* Titus. Baja Calif., northwest. Mexico. Visiting flowers of *Dalea*, *Heliotropium*, *Petalonyx*, *Pectis*, *Palafoxia*, *Cryptantha*.  
*Ashmeadiella haematopoda* Cockerell (syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 175).  
 \**Ashmeadiella rhodopus* Michener, 1936. Pan-Pacific Ent. 12: 59. ♂ ♀. (Syn. by Hurd and Michener, *loc. cit. supra*).  
*rufitarsis* Michener. On flowers of *Eriogonum*.  
*schwarzi* Titus. Syn. of *prosopidis* (Cockerell).  
*sonora* Michener. Ariz., Utah; Baja Calif. On flowers of *Baileya*, *Asclepias*, *Olneya*, *Hugelia*, *Euphorbia*, *Eriogonum*, *Pectis*.



**titusi** Michener. On flowers of *Lotus*, *Phacelia*, *Helianthus*.

\***truncativentris** Michener. Tex. (Sanderson). On flowers of *Dalea*.

*Ashmeadiella (Ashmeadiella) truncativentris* Michener, 1951. Pan-Pacific Ent. 27: 68. ♀ ♂.

**ASHMEADIELLA subgenus TITUSELLA Cockerell, p. 1155**

**biscopula** Michener. On flowers of *Prosopis*.

**cubiceps clypeata** Michener. On flowers of *Encelia*, *Melilotus*, *Stenotopsis*, *Chaenactis*, *Sphaeralcea*, *Haplopappus*.

**pronitens** (Cockerell). Wyo.

**ASHMEADIELLA subgenus AROGOCHILA Michener, pp. 1155-1156**

**australis** (Cockerell). Nev., Utah. On flowers of *Monardella*, *Solidago*.

**cazieri** Michener. On flowers of *Dalea*, *Cercidium*.

**clypeodentata clypeodentata** Michener, changed status. On flowers of *Delea*, *Prosopis*, *Cercidium*, *Phacelia*.

*Ashmeadiella (Arogochila) clypeodentata* Michener. Reduced to subsp. rank (*teste* Michener, 1951. Pan-Pacific Ent. 27: 70).

\***clypeodentata simplicior** Michener. Tex., Ariz. On flowers of *Prosopis*.  
*Ashmeadiella (Arogochila) clypeodentata simplicior* Michener, 1951. Pan-Pacific Ent. 27: 70. ♀.

**erema** Michener. Ariz., Tex. On flowers of *Dalea*.

**eurynorhyncha** Michener. On flowers of *Dalea*.

**foxiella** Michener. On flowers of *Pentstemon* and *Phacelia*.

**lutzi** (Cockerell). Utah. On flowers of *Phacelia*.

**salviae** Michener. On flowers of *Dalea*, *Rhamnus*, *Brassica*.

**stenognatha** Michener. On flowers of *Phacelia*.

Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 27: 77. ♂.

**timberlakei solida** Michener. Cent. and north. Calif., Oreg., Nev. On flowers of *Lotus*, *Trifolium*, *Nama*, *Astragalus*, *Phacelia*, *Solidago*.

**timberlakei timberlakei** Michener. Restricted to south. Calif. On flowers of *Phacelia*, *Cryptantha*, *Chaenactis*, *Eriodictyon*, *Lupinus*.

**ASHMEADIELLA subgenus CORYTHOCHILA Michener, p. 1156**

**breviceps** Michener. Mexico (Baja Calif., Sonora). On flowers of *Larrea*, *Hyptis*, *Stephanomeria*, *Cryptantha*, *Dipetalia*, *Prosopis*.

**inyoensis** Michener. On flowers of *Dalea*.

**ASHMEADIELLA subgenus CHILOSIMA Michener, p. 1156**

**rhodognatha** Cockerell. Nev., Tex. On flowers of *Pluchea*, *Prosopis*, *Heliotropium*, *Dalea*, *Cercidium*, *Cryptantha*, *Melilotus*.

**ASHMEADIELLA subgenus CUBITOGNATHA Michener, p. 1156**

**xenomastax** Michener. Mexico (Sonora). On flowers of *Dalea*, *Eriogonum*, *Phacelia*, *Chaenactis*, *Lupinus*.

**HOPLITIS subgenus FORMICAPIS Sladen**

(= *Formicapis* Sladen, p. 1156)

Reduced to subgeneric rank (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 44).

**clypeata** Sladen. Calif. On flowers of *Taraxacum*.

**HOPLITIS subgenus ROBERTSONELLA Titus**  
(= *Robertsonella* Titus, p. 1157)

Reduced to subgeneric rank (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 44).

**HOPLITIS subgenus HOPLITINA Cockerell, p. 1157**

**bullifacies** Michener. On flowers of *Phacelia*. Change ♀ ♂ to ♀ (♂ misdet.) in orig. cit.

Taxonomy: Michener, 1954. Pan-Pacific Ent. 30: 37. ♂.

**howardi** (Cockerell). Occasionally on flowers of *Cryptantha* and *Salvia*.

\***mazourka** Michener. Calif. (Inyo Co.). On flowers of *Cryptantha*.

*Hoplitis mazourka* Michener, 1954. Pan-Pacific Ent. 30: 38. ♂.

**mojavensis** Michener. On flowers of *Phacelia* and *Cryptantha*.

**HOPLITIS subgenus ALCIDAMEA Cresson, pp. 1157-1158**

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1051, figs. 142-145, 149 (larva).

**brachyodonta** (Cockerell). On flowers of *Heliotropium* and *Chaenactis*.

**colei** (Crawford). On flowers of *Eriodictyon*.

**grinnelli septentrionalis** Michener. Idaho, Utah. On flowers of *Linum*, *Pentstemon*, *Phacelia*.

**pilosifrons** (Cresson).

Biology: Michener, 1955. Kans. Ent. Soc. Jour. 28: 81-83.

**producta gracilis** (Michener). Nev.

**truncata mescalerium** Cockerell. Ariz. Many flower records.

**truncata truncata** (Cresson). Nebr., Wyo.

**HOPLITIS subgenus CYRTOSMIA Michener, p. 1158**

**hypocrita** (Cockerell). Ariz., Nev., Utah, Mont., Idaho, Oreg. Many flower records.

**HOPLITIS subgenus DASYOSMIA Michener, p. 1158**

**biscutellae** (Cockerell). Tex., Nev., Utah.

**HOPLITIS subgenus ACROSMIA Michener, p. 1159**

**laevibullata** (Michener). Utah. Principally on flowers of *Nemophila* and *Phacelia*.

*Anthocopa* (*Eremosmia*) **laevibullata** Michener. Transf. from *Anthocopa* subg. *Eremosmia* (*teste* Michener, 1954. Pan-Pacific Ent. 30: 40).

*Hoplitis* (*Acrosmia*) **perissocera** Michener (syn. by Michener, *loc. cit. supra*).

**perissocera** Michener. Syn. of *laevibullata* (Michener).

**plagiostoma** Michener. Oreg.

\***rufina** Michener. Calif., Oreg., Utah. On flowers of *Nemophila* and *Viola*.

*Hoplitis rufina* Michener, 1954. Pan-Pacific Ent. 30: 40. ♀ ♂.

**HOPLITIS subgenus MONUMETHA Cresson, p. 1159**

*Chlorosmia* Sladen of Catalog. Syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 81.

**albifrons argentifrons** (Cresson). Nebr. (Sioux Co.).

**louisae** (Cockerell). Utah.

Genus **PROTERIADES** Titus, p. 1160

*Anthocopa* subg. *Xerosmia* Michener, 1943. Ent. Soc. Amer. Ann. 36: 81.

Type: *Osmia xerophila* Cockerell. Orig. desig.

Revision: Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 387-440, 16 figs.

*Xerosmia* synonymized under *Proteriades* by Timberlake and Michener (*op. cit.*, p. 391) and component species transferred to *Proteriades*. In citation of type of subgenus *Cephalapis*, change *jacintinum* to *jacintanum*.

\**basingeri* Timberlake and Michener. Calif. (Riverside Co.)

*Proteriades basingeri* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 413. ♂ ♀.

\**bidenticauda* Timberlake and Michener. Calif. (Inyo Co.).

*Proteriades bidenticauda* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 420, figs. 4, 11. ♂ ♀.

\**boharti* Timberlake and Michener. Calif. (Carrville, Trinity Co.).

*Proteriades boharti* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 429, figs. 2, 14. ♂.

\**caudex* Timberlake and Michener. Calif. (San Jacinto Mts.).

*Proteriades caudex* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 418, figs. 3, 15. ♂ ♀.

\**cryptanthae* Timberlake and Michener. South. Calif.

*Proteriades cryptanthae* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 416. ♂ ♀.

\**deserticola* Timberlake and Michener. South. Calif.

*Proteriades deserticola* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 430. ♂ ♀.

\**hamulicornis* Timberlake and Michener. Calif. (Inyo Co.).

*Proteriades hamulicornis* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 425, figs. 5, 13. ♂ ♀.

*incanescens incanescens* (Cockerell), changed status.

*Proteriades incanescens* (Cockerell). Reduced to subsp. rank (*teste* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 399).

\**incanescens nevadensis* Timberlake and Michener. Nev., Calif.

*Proteriades incanescens nevadensis* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 399. ♀.

Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 27: 71. ♂.

\**incanescens tota* Michener. Calif. (Tuolumne Co.)

*Proteriades incanescens tota* Michener, 1954. Kans. Ent. Soc. Jour. 27: 72. ♀.

*jacintana* (Cockerell). Oreg.

\**nanula nanula* Timberlake and Michener. South. Calif. lowlands.

*Proteriades nanula nanula* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 409. ♂ ♀.

\**nanula sparsa* Timberlake and Michener. Centr. Calif., south. Calif. mts.

*Proteriades nanula sparsa* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 410. ♂ ♀.

\**nigra* Timberlake and Michener. Syn. of *palmarum* (Cockerell).

\**nigrella attonita* Michener. Calif. (Inyo Co.).

*Proteriades nigrella attonita* Michener, 1954. Kans. Ent. Soc. Jour. 27: 73. ♀ ♂.

\**nigrella nigrella* Michener. South. Calif.

*Proteriades nigrella nigrella* Michener, 1954. Kans. Ent. Soc. Jour. 27: 73. ♀.



*palmarum* (Cockerell). Transf. from *Anthocopa* subg. *Xerosmia*, p. 1162.

\**Proteriades nigra* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 405. ♀. (Syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 139.)

Taxonomy: Michener, 1954. Kans. Ent. Soc. Jour. 27: 71. ♂.

\**pygmaea* Timberlake and Michener. South. Calif.

*Proteriades pygmaea* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 411, figs. 6, 16. ♂ ♀.

\**reducta* Timberlake and Michener. Calif. (Riverside Co.)

*Proteriades reducta* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 414. ♂ ♀.

\**seminigra seminigra* Timberlake and Michener. South. Calif.

*Proteriades seminigra seminigra* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 403. ♂ ♀.

\**seminigra yosemitensis* Timberlake and Michener. Cent. Calif.

*Proteriades seminigra yosemitensis* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 404. ♂ ♀.

*semirubra* (Cockerell). Coastal south. and cent. Calif.

\**similis* Timberlake and Michener. Calif. (Riverside).

*Proteriades similis* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 406. ♀.

\**truicauda* Timberlake and Michener. Calif. (San Jacinto Mts.).

*Proteriades truicauda* Timberlake and Michener, 1950. Kans. Univ. Sci. Bul. 33: 423. ♂ ♀.

*xerophila* (Cockerell). Transf. from *Anthocopa* subg. *Xerosmia*, p. 1162.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1055, figs. 146-148, 150 (larva).

#### **ANTHOCOPA subgenus ATOPOSMIA Cockerell, pp. 1160-1161**

*abjecta abjecta* (Cresson), changed status. Calif. (Mono Co.), Utah, Wyo.

*Anthocopa (Atoposmia) abjecta* (Cresson). Reduced to subsp. rank (teste Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 99).

*Hoplitis mesae* Cockerell (syn. by Michener, 1954. Pan-Pacific Ent. 30: 43).

*Anthocopa (Atoposmia) nigrior* Michener (syn. by Michener, *loc. cit. supra*).

*abjecta alta* (Michener), changed status. Calif. (Sierra Mts.).

*Anthocopa (Atoposmia) alta* (Michener). Reduced to subsp. rank (teste Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 99).

*alta* (Michener). A subsp. of *abjecta* (Cresson).

*anthodyta anthodyta* Michener, changed status. Oreg., Idaho; Baja Calif.

*Anthocopa (Atoposmia) anthodyta* Michener. Reduced to subsp. rank (teste Michener, 1954. Pan-Pacific Ent. 30: 42).

\**anthodyta bequaerti* Michener. Ariz. (Santa Rita Mts.).

*Anthocopa anthodyta bequaerti* Michener, 1954. Pan-Pacific Ent. 30: 42. ♂ ♀.

\**arizonensis* Michener. Ariz.

*Anthocopa arizonensis* Michener, 1954. Pan-Pacific Ent. 30: 43. ♀.

*elongata* (Michener). Wash., Mont., Colo.

\**hebitis* Mitchener. Calif. (Tulare Co.).

*Anthocopa hebitis* Michener, 1954. Pan-Pacific Ent. 30: 44. ♀ ♂.

*mesae* (Cockerell). Syn. of *abjecta abjecta* (Cresson).

*nigrior* Michener. Syn. of *abjecta abjecta* (Cresson).

*oregona* Michener. Calif. (Sierra Nevada).

*shastensis* (Cockerell). A subsp. of *tridonta* (Cockerell).

*triodonta shastensis* (Cockerell), changed status.

*Anthocopa (Atoposmia) shastensis* (Cockerell). Reduced to subsp. rank (teste Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 106).

**ANTHOCOPA subgenus EREMOSMIA Michener, pp. 1161-1162**

*Anthocopa* subg. *Phaeosmia* Michener. Syn. by Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 107.

\**beameri* Michener. Tex. (Big Bend Natl. Park, Marathon). On flowers of *Phacelia* and *Nama*.

*Anthocopa (Eremosmia) beameri* Michener, 1951. Pan-Pacific Ent. 27: 64. ♀ ♂.

\**daleae* Michener. Tex. (Big Bend Natl. Park, Sanderson). On flowers of *Phacelia* and *Dalea*.

*Anthocopa (Phaeosmia) daleae* Michener, 1951. Pan-Pacific Ent. 27: 62. ♀ ♂.

*enceliae enceliae* (Cockerell), changed status. On flowers of *Encelia*.

*Anthocopa (Phaeosmia) enceliae* (Cockerell). Reduced to subsp. rank (teste Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 119).

*enceliae mortua* (Cockerell), changed status. Nev. On flowers of *Encelia*.

*Anthocopa (Phaeosmia) mortua* (Cockerell). Reduced to subsp. rank (teste Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 119).

*Anthocopa (Phaeosmia) mallognatha* Michener (syn. by Hurd and Michener, loc. cit. supra).

*hemizoniae* (Cockerell). On flowers of *Hemizonia* and *Helianthus*.

Taxonomy: Michener, 1954. Pan-Pacific Ent. 30: 50. ♂.

\**hurdiana* Michener. Calif. (Panamint Mts.). On flowers of *Dalea*.

*Anthocopa hurdiana* Michener, 1954. Pan-Pacific Ent. 30: 47. ♀ ♂.

*hypostomalis* Michener. On flowers of *Dalea*, *Cryptantha*.

Taxonomy: Michener, 1954. Pan-Pacific Ent. 30: 49. ♂.

*laevibullata* Michener. Transf. to *Hoplitis* subg. *Aerosmia*, p. 1159.

*mallognatha* Michener. Syn. of *enceliae mortua* (Cockerell).

*maryae* Michener. On flowers of *Dalea*.

\**mirifica* Michener. Calif. (Inyo Co.). On flowers of *Encelia* and *Chaenactis*.

*Anthocopa mirifica* Michener, 1954. Pan-Pacific Ent. 30: 51. ♀ ♂.

*mortua* (Cockerell). A subsp. of *enceliae* (Cockerell).

\**namatophila* Michener. On flowers of *Nama*.

*Anthocopa namatophila* Michener, 1954. Pan-Pacific Ent. 30: 47. ♀.

*nitidivitta* Michener. On flowers of *Astragalus* and *Dalea*.

*robustula* (Cockerell). Nev. On flowers of *Dalea*, *Cercidium*, *Palafoxia*, *Astragalus*.

\**rubrella macswaini* Michener. Calif., Nev.

*Anthocopa rubrella macswaini* Michener, 1954. Pan-Pacific Ent. 30: 45. ♀ ♂.

*rubrella rubrella* Michener, changed status. On flowers of *Dalea*.

*Anthocopa (Phaeosmia) rubrella* Michener. Reduced to subsp. rank (teste Michener, 1954. Pan-Pacific Ent. 30: 45).

\**rubrella rubrior* Michener. South. Calif. On flowers of *Dalea*.

*Anthocopa rubrella rubrior* Michener, 1954. Pan-Pacific Ent. 30: 46. ♀ ♂.

*rupestris* (Cockerell). On flowers of *Phacelia*, *Larrea*, *Eriodictyon* and *Nama*. Change orig. cit. to read p. 47, not p. 46.

\**segregata* Michener. Calif. (Inyo Co.). On flowers of *Parosela*.

*Anthocopa segregata* Michener, 1954. Pan-Pacific Ent. 30: 48. ♀.

*timberlakei* (Cockerell). On flowers of *Astragalus*.

*viguierae* (Cockerell). On flowers of *Viguiera*, *Hyptis*, *Enceliopsis*, *Encelia*.

**ANTHOCOPA subgenus HEXOSMIA Michener, p. 1162**

*albomarginata* (Cockerell). A subsp. of *copelandica* (Cockerell).

*arefacta* (Cockerell). A subsp. of *copelandica* (Cockerell).

*copelandica albomarginata* (Cockerell), changed status. Calif., west. Oreg.  
On flowers of *Phacelia*, *Collinsia*, *Nemophila*.

*Anthocopa (Hexosmia) albomarginata* (Cockerell). Reduced to subsp.  
rank (*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul.  
3: 125).

*copelandica arefacta* (Cockerell), changed status. On flowers of *Phacelia*,  
*Cryptantha*, *Malacothrix*.

*Anthocopa (Hexosmia) arefacta* (Cockerell). Reduced to subsp. rank  
(*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 125).

*copelandica copelandica* (Cockerell), changed status. Colo., Utah, Wyo.,  
Mont., Idaho, east. Oreg., Wash., B. C.

*Anthocopa (Hexosmia) copelandica* (Cockerell). Reduced to subsp. rank  
(*teste* Hurd and Michener, 1955. Calif. Ins. Survey Bul. 3: 123).

*phaceliarum* (Cockerell). On flowers of *Phacelia*.

**ANTHOCOPA subgenus XEROSMIA Michener, p. 1162**

Synonymized under *Proteriades* Titus, p. 1160, and component species  
transferred to that genus. Correct *Xerosimia* to *Xerosmia* in orig. cit.

**Genus DICERATOSMIA Robertson, p. 1162**

*subfasciata punctata* (Michener). Syn. of *subfasciata subfasciata* (Cresson).

*subfasciata subfasciata* (Cresson). Visits many flowers.

*Diceratosmia subfasciata punctata* (Michener) (syn. by Hurd and  
Michener, 1955. Calif. Ins. Survey Bul. 3: 215).

**OSMIA subgenus OSMIA Panzer, p. 1163**

*lignaria lignaria* Say.

Biology: Bohart, 1955. Ent. Soc. Wash. Proc. 57: 203-204.

*lignaria propinqua* Cresson.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1054, figs. 135-137,  
140 (larva).

**OSMIA subgenus CHALCOSMIA Schmiedeknecht, pp. 1163-1164**

*coerulescens* (Linnaeus). Change Syst. Ent. to Syst. Nat. in orig. cit. of  
*Apis coerulescens*.

*coloradensis* Cresson. Nesting in pine cone.

Biology: Ruckes, 1956. Pan-Pacific Ent. 32: 122, 1 fig.

**OSMIA subgenus CEPHALOSMIA Sladen, p. 1164**

*californica* Cresson.

Biology: Bohart, 1955. Ent. Soc. Wash. Proc. 57: 203-204.

**OSMIA subgenus MELANOSMIA Schmiedeknecht, pp. 1164-1165**

*hendersoni* Cockerell. Transf. from *Osmia* subg. *Acanthosmioides*, p. 1165  
(*teste* White, 1952. Kans. Univ. Sci. Bul. 35: 221).

*kenoyeri* Cockerell. Transf. from *Osmia* subg. *Acanthosmioides*, p. 1165  
(*teste* White, 1952. Kans. Univ. Sci. Bul. 35: 221).

**OSMIA subgenus ACANTHOSMIOIDES Ashmead, pp. 1165-1166**

Revision: White, 1952. Kans. Univ. Sci. Bul. 35: 219-307, pls. 39-44.



\**calcarata* White. Calif. (Sonora Pass in Sierra Nevada Mts.).

*Osmia calcarata* White, 1952. Kans. Univ. Sci. Bul. 35: 245, pl. 39, fig. 15; pl. 40, fig. 11; pl. 41, fig. 9; pl. 42, fig. 9; pl. 43, fig. 11; pl. 44, fig. 15. ♂ ♀.

*crenulaticornis* Michener. Syn. of *physariae* Cockerell.

*depressa* Michener. Syn. of *unca* Michener, not *nifoata* Cockerell.

*enixa* Sandhouse. Transf. to *Osmia* subg. *Nothosmia*, p. 1168.

\**francisconis* White. Calif. (San Francisco).

*Osmia francisconis* White, 1952. Kans. Univ. Sci. Bul. 35: 269, pl. 40, fig. 2. ♀.

*giliarum* Cockerell. Wyo. Delete Oreg. On flowers of *Gilia* and *Pentstemon*.

*hendersoni* Cockerell. Transf. to *Osmia* subg. *Melanosmia*, p. 1165.

\**hurdi* White. Calif., B. C. On flowers of *Allium*.

*Osmia hurdi* White, 1952. Kans. Univ. Sci. Bul. 35: 273, pl. 39, fig. 7. ♀.

*integra* Cresson, changed status. Calif. to B. C., east to Man., south to Ariz., N. Mex., Tex. On flowers of *Lotus*.

*Osmia (Acanthosmioides) integra integra* Cresson. Raised to sp. rank (*teste* White, 1952. Kans. Univ. Sci. Bul. 35: 290).

*Osmia (Acanthosmioides) integra nigrigena* Michener (syn. by White, *loc. cit. supra*).

*integra nigrigena* Michener. Syn. of *integra* Cresson.

*kenoyeri* Cockerell. Transf. to *Osmia* subg. *Melanosmia*, p. 1165.

*lanei* Sandhouse. Delete Wash., Oreg. from range.

*lapinicola* Cockerell. Correct range to South. Calif. Mts. On flowers of *Lupinus*, *Lotus*, *Nolina*.

*lutzi* Michener. Syn. of *sedula* Sandhouse, not of *pellax* Sandhouse.

*melanopleura* Cockerell. Transf. to *Osmia* subg. *Nothosmia*, p. 1169. N. b., *pinorum* Cockerell is a syn. of *Osmia (Acanthosmioides) physariae* Cockerell, not of *melanopleura*.

*nifoata* Cockerell. Remove *sladeni* Sandhouse from syn. (a valid sp.) and *depressa* Michener from syn. (a syn. of *unca* Michener). Calif. and Wash. to Colo. and Idaho.

*Osmia pellax* Sandhouse (syn. by White, 1952. Kans. Univ. Sci. Bul. 35: 261).

*nigrifrons* Cresson, changed status. Wash. to Calif. east to Wyo., Colo., Utah. On flowers of *Vicia* and *Astragalus*.

*Osmia (Acanthosmioides) nigrifrons nigrifrons* Cresson. Raised to sp. rank (*teste* White, 1952. Kans. Univ. Sci. Bul. 35: 271).

*Osmia nigrifrons casta* Cockerell (syn. by White, *loc. cit. supra*).

*nigrifrons casta* Cockerell. Syn. of *nigrifrons* Cresson.

*nigrobarbata* Cockerell. Wash.

\**obliqua* White. Calif., Oreg., B. C. On flowers of *Astragalus*.

*Osmia obliqua* White, 1952. Kans. Univ. Sci. Bul. 35: 238, pl. 40, fig. 7; pl. 41, fig. 5; pl. 42, fig. 2; pl. 43, fig. 9; pl. 44, figs. 1, 5. ♂.

*odontogaster* Cockerell. Calif.

*pellax* Sandhouse. Syn. of *nifoata* Cockerell. N. b., *lutzi* Michener is a syn. of *sedula* Sandhouse, not of *pellax*.

*physariae* Cockerell. South. Calif. mts. to B. C., east to Sask., Colo., Utah, Nev. On flowers of *Lotus*, *Allium*, *Trifolium*, *Iris*.

*Osmia pinorum* Cockerell not a syn. of *melanopleura* Cockerell but of *physariae* (*teste* White, 1952. Kans. Univ. Sci. Bul. 35: 251).

*Osmia crenulaticornis* Michener (syn. by White, *loc. cit. supra*).

*pinorum* Cockerell. Syn. of *physariae* Cockerell, not of *melanopleura* Cockerell.

*sedula* Sandhouse. Calif., B. C., Wyo.

*Osmia lutzii* Michener not a syn. of *pellax* Sandhouse but of *sedula* (teste White, 1952. Kans. Univ. Sci. Bul. 35: 265).

*sladeni* Sandhouse. B. C., Alta., Wyo., Utah.

*Osmia nifoata* Cockerell of Catalog, in part. *O. sladeni* not a syn. (teste White, 1952. Kans. Univ. Sci. Bul. 35: 249).

*titusi* Cockerell. Transf. from *Osmia* subg. *Nothosmia*, p. 1171 (teste White, 1952. Kans. Univ. Sci. Bul. 35: 280). On flowers of *Lupinus* and *Astragalus*.

*trifoliama* Sandhouse. On flowers of *Trifolium*.

*unca* Michener. Oreg., Wash., B. C., Mont., Colo., Utah.

*Osmia depressa* Michener not a syn. of *nifoata* Cockerell but of *unca* (teste White, 1952. Kans. Univ. Sci. Bul. 35: 251).

#### **OSMIA subgenus NOTHOSMIA Ashmead, pp. 1167-1171**

*enixa* Sandhouse. Transf. from *Osmia* subg. *Acanthosmioides*, p. 1165 (teste White, 1952. Kans. Univ. Sci. Bul. 35: 221).

*melanopleura* Cockerell. Transf. from *Osmia* subg. *Acanthosmioides*, p. 1166 (teste White, 1952. Kans. Univ. Sci. Bul. 35: 221). N. b., *pinorum* Cockerell, rec. as syn. of *melanopleura* in Catalog, is syn. of *Osmia* (*Acanthosmioides*) *physariae* Cockerell.

*seclusa* Sandhouse. Utah. On flowers of *Pentstemon*, *Astragalus*, *Lupinus*, *Medicago*.

Biology: Bohart, 1955. Ent. Soc. Wash. Proc. 57: 235-236.

*titusi* Cockerell. Transf. to *Osmia* subg. *Acanthosmioides*, p. 1166.

#### **MEGACHILE subgenus LITOMEGACHILE Mitchell, p. 1172**

*brevis brevis* Say, changed status.

*Megachile* (*Litomegachile*) *brevis* Say. Reduced to subsp. rank (teste Michener, 1953. Kans. Univ. Sci. Bul. 35: 1663).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1057, figs. 151-153, 157 (larva).

Biology: Michener, 1953. *Op. cit.*, pp. 1659-1748, 31 figs.

*brevis onobrychidis* Cockerell, changed status. Intergrading with typical *brevis* Say in a wide area from Nebr. and Tex. to Pacific.

*Megachile* (*Litomegachile*) *onobrychidis* Cockerell. Reduced to subsp. rank (teste Michener, 1953. Kans. Univ. Sci. Bul. 35: 1663).

*mendica* Cresson. Reared from rose canes.

*onobrychidis* Cockerell. A subsp. of *brevis* Say.

*texana* Cresson. Nests in soil.

Biology: Krombein, 1953. Ent. Soc. Wash. Proc. 55: 84-85.

#### **MEGACHILE subgenus MEGACHILE Latreille, p. 1173**

*inermis* Provancher. Nesting in decaying poplar.

Biology: Stephen, 1956. Pan-Pacific Ent. 32: 98-101.

#### **MEGACHILE subgenus EUTRICHARAEA Thomson, p. 1174**

\**argentata* (Fabricius). Calif., Okla.; presumably introduced from Europe or Asia. On flowers of *Centromadia*, *Heliotropium*, *Medicago*.

*Apis argentata* Fabricius, 1793. Ent. Syst. 2: 336.

*Apis albiventris* Panzer, 1798. Faun. Ins. German. 5: Heft 56, pl. 19.

*Megachile Leachella* Curtis, 1828. Brit. Ent. 5: 218.

*rotundata* (Fabricius). Pa., Kans., Mo., Tex., Calif. On flowers of *Centromadia*, *Cosmos*, *Solidago*, *Euphorbia*, *Polygonum*.

**MEGACHILE subgenus DELOMEGACHILE Viereck, pp. 1174-1175**

*frigida frigida* Smith. Nesting in decaying poplar. Transf. *vidua* Smith to syn. of *Megachile* (*Xanthosarus*) *latimanus* Say, p. 1179.  
Biology: Stephen, 1956. Pan-Pacific Ent. 32: 95-98.

**MEGACHILE subgenus MEGACHILOIDES Mitchell, p. 1175**

*oenotherae* (Mitchell). Nesting in loam.  
Biology: Sivik, 1954. Ent. News 65: 256.

**MEGACHILE subgenus XEROMEGACHILE Mitchell, pp. 1176-1178**

*rubi* Mitchell. Nesting in sandy loam.  
Biology: Sivik, 1954. Ent. News 65: 255-256.

**MEGACHILE subgenus ARGYROPILE Mitchell, p. 1179**

*parallela parallela* Smith. Nests in ground.  
Biology: Fischer, 1951. Kans. Ent. Soc. Jour. 24: 49-50.

**MEGACHILE subgenus XANTHOSARUS Robertson, pp. 1179-1180**

*\*armata* Smith. Syn. of *comata* Cresson.

*comata* Cresson.

*\*Megachile armata* Smith, 1879. Descr. New Species Hym. Brit. Mus., p. 80. ♂. N. syn. (*teste* T. B. Mitchell, based on type exam.).

*latimanus* Say.

*Megachile vidua* Smith, n. syn. Not a syn. of *Megachile* (*Delomegachile*) *frigida frigida* Smith, p. 1174 (*teste* T. B. Mitchell, based on type exam.).

**MEGACHILE subgenus CHELOSTOMOIDES Robertson, pp. 1182-1183**

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1059, figs. 162-164 (larva.)—Mitchell, 1956. Pan-Pacific Ent. 32: 134-138 (revised key to spp.).

*angellarum* Cockerell. B. C. Visiting many flowers.

*chilopsidis* Cockerell. On flowers of *Acacia*, *Cercidium*, *Chilopsis*, *Olneya*, *Prosopis*.

*Megachile* (*Chelostomoides*) *longula* (Fox). Orig. cit. for *Lithurgus longulus* should read *\*Lithurgus oblongus*, preocc.

*Megachile longula* Fox, 1902. Ent. News 13: 137. N. name.

*Megachile* (*Chelostomoides*) *pratti* Cockerell of Catalog, in part. *Megachile pratti* is the opposite sex of *chilopsidis* and *M. discorhina* Cockerell is a valid. sp. (*teste* Mitchell, 1956. Pan-Pacific Ent. 32: 129-130).

*davidsoni* Cockerell. On flowers of *Pentstemon*.

*discorhina* Cockerell. Calif., Ariz.; Baja Calif. On flowers of *Acacia*, *Cercidium*, *Larrea*, *Medicago*, *Melilotus*, *Prosopis*. A valid sp., not a syn. of *pratti* Cockerell (*teste* Mitchell, 1956. Pan-Pacific Ent. 32: 131).

*duplexa* Mitchell. Syn. of *odontostoma* Cockerell.

*lobatifrons* Cockerell. On flowers of *Cercidium*, *Prosopis*.

*longula* (Fox). Syn. of *chilopsidis* Cockerell.

*\*oblongus* (Fox). Syn. of *chilopsidis* Cockerell.

*occidentalis* Fox. Nesting in adobe wall. On flowers of *Lotus*, *Cercidium*, *Medicago*, *Tamarix*, *Nolina*, *Chilopsis*.

*odontostoma* Cockerell. On flowers of *Acacia*, *Melilotus*, *Prosopis*, *Senecio*.

*Megachile* (*Chelostomoides*) *duplexa* Mitchell (syn. by Mitchell, 1956. Pan-Pacific Ent. 32: 131).

*pratti* Cockerell. Syn. of *chilopsidis* Cockerell; n. b., *discorhina* Cockerell is a valid sp., not a syn.



- spinotulata* Mitchell. On flowers of *Eriogonum*, *Cryptantha*, *Robinia*, *Eriodictyon*.
- subexilis* Cockerell. On flowers of *Salvia*, *Phacelia*, *Vicia*, *Lotus*, *Lathyrus*, *Trifolium*.
- \**texensis* Mitchell. Tex. (Southmost in Cameron Co.). On flowers of *Parkinsonia*.  
*Megachile (Chelostomoides) texensis* Mitchell. Pan-Pacific Ent. 32: 132. ♀.
- \**tucsonensis* Mitchell. Ariz. (Tucson).  
*Megachile (Chelostomoides) tucsonensis* Mitchell, 1956. Pan-Pacific Ent. 32: 133. ♀.

\***MEGACHILE subgenus ARCHIMEGACHILE Alfken**

*Megachile* subg. *Archimegachile* Alfken, 1933. Konowia 12: 56.

Type: *Megachile flavipes* Spinola. Orig. desig.

Place after *Megachile* subgenus *Chelostomoides* Robertson, p. 1183.

- \**lanata* (Fabricius). Fla. (Miami); an Indian species, probably introduced into U. S. from Cuba, where it is also adventive. Builds clay cells in cavities.
- Apis lanata* Fabricius, 1775. Systema Ent., p. 385.
- Apis purpurea* Christ, 1791. Naturgesch. Insekt. Bienen, Wespen u. Ameisengeschl., p. 168, pl. 13, fig. 7.
- Megachile Martindalei* Fox, 1891. Amer. Ent. Soc. Trans. 18: 344. ♀ ♂.
- Biology: Horne, 1870. Zool. Soc. London Trans. 7: 176-177, pl. 19, figs. 11, 11a, 11b.

**Genus COELIOXYS Latreille, pp. 1183-1186**

- 8-dentata* Say. Host: *Megachile (Litomegachile) brevis brevis* Say.  
 Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1060, figs. 159-161, 165, 166 (larva).  
 Biology: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1737-1742, figs. 24-26.
- porterae* Cockerell. Host: *Megachile (Megachile) relativa* Cr.
- sayi* Robertson. Host: *Megachile (Litomegachile) mendica* Cr.

**Family APIDAE**

**EXOMALOPSIS subgenus EXOMALOPSIS Spinola, p. 1187**

- solani* Cockerell. Mexico (Zacatecas).  
 Biology: Linsley, MacSwain and Smith, 1954. Pan-Pacific Ent. 30: 263-264.

**EXOMALOPSIS subgenus ANTHOPHORULA Cockerell, pp. 1187-1188**

- euphorbiae* Timberlake. Calif.
- sidae* Cockerell. Ariz., south Calif.; Baja Calif. On flowers of *Sida*, *Sphaeralcea*, *Gossypium*.

**Genus NOMADA Scopoli, pp. 1189-1206**

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1069, figs. 187-189 (larva).

**NOMADA subgenus NOMADA Scopoli, pp. 1189-1194**

- fowleri* Cockerell. Syn. of *obscuraella* Fowler.
- obscuraella* Fowler. Host: *Andrena complexa* Vier.  
*Nomada (Nomada) fowleri* Cockerell (syn. by Linsley and MacSwain, 1955. Canad. Ent. 87: 440).  
 Biology: Linsley and MacSwain, 1955. Wasmann Jour. Biol. 13: 275, pl. 1, fig. 4.

**NOMADA subgenus GNATHIAS Robertson, pp. 1194-1196**

\**debilis* Timberlake. Calif. On flowers of *Potentilla*, *Ceanothus*, *Salix*, *Montia*, *Nemophila*, *Arctostaphylos*.

*Nomada (Gnathias) debilis* Timberlake, 1954. Pan-Pacific Ent. 30: 135.  
♀ ♂.

*Nomada (Gnathias) debilis* var. *a* Timberlake, 1954. Pan-Pacific Ent. 30: 136. ♀.

*maculata* Cresson.

*Nomada (Gnathias) volatilis* Smith, n. syn. (teste T. B. Mitchell, based on exam. of types).

\**opacella* Timberlake. Calif. On flowers of *Ranunculus*. Hosts: *Andrena complexa* Vier., *A. suavis* Timb.

*Nomada (Gnathias) opacella* Timberlake, 1954. Pan-Pacific Ent. 30: 133. ♀ ♂.

Biology: Linsley and MacSwain, 1955. Wasmann Jour. Biol. 13: 256-270, pl. 1, fig. 1; pls. 2 and 3.

*volatilis* Smith. Syn. of *maculata* Cresson.

**NOMADA subgenus HOLONOMADA Robertson, pp. 1200-1201**

*edwardsii edwardsii* Cresson. Host: *Andrena perimelas* Ckll.

Biology: Linsley and MacSwain, 1955. Wasmann Jour. Biol. 13: 270-274. pl. 1, fig. 6; pls. 4 and 5.

**NOMADA subgenus MICRONOMADA Cockerell and Atkins, pp. 1202-1204**

*heilighbrodtii* Cresson. Fla.

*suavis* Cresson. Wash., Idaho. Host: *Nomia (Acunomia) m. melanderi* Ckll.

**Genus NEOPASITES Ashmead, pp. 1208-1209**

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1067, figs. 180-185 (larva).

**NEOPASITES subgenus NEOPASITES Ashmead, p. 1208**

An undescribed species has been reared from *Dufourea (Halictoides) trochantera* Bohart.

**Tribe TOWNSENDIELLINI**

Footnote <sup>79</sup> was omitted. It should read <sup>79</sup> By E. Gorton Linsley, University of California.

**NEOLARRA subgenus NEOLARRA Ashmead, pp. 1209-1210**

*congregata* Crawford. N. Mex.

*pruinosa* Ashmead. Calif.

**Genus OREOPASITES Cockerell, pp. 1210-1211**

*vanduzeei* Cockerell.

Taxonomy: Rozen, 1954. Pan-Pacific Ent. 30: 203-207, 6 figs. (larva).

**Tribe PROTEPEOLINI**

Footnote <sup>82</sup> was omitted. It should read <sup>82</sup> By E. Gorton Linsley, University of California.

**Genus EPEOLUS Latreille, pp. 1211-1213**

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1072, figs. 195, 196, 198 (larva).

\**pilosulus* Provancher. Canada (Cap Rouge).

*Epeolus pilosulus* Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 426. ♀.

*scutellaris* Say. In orig. cit. change 1924 to 1824.

**Genus TRIEPEOLUS Robertson, pp. 1213-1218**

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1070, figs. 190-194, 197 (larva).

**\*Genus PTILOTHRIX Smith**

(= *Emphor* Patton, p. 1218)

\**Ptilothrix* Smith, 1853. Cat. Hym. Brit. Mus., v. 1, p. 131.

Type: *Ptilothrix plumatus* Smith. By monotypy.

\**Ptilothrix* Marschall, 1873. Nomenclator Zoologicus, p. 269. Emend.

\**Energoponus* Holmberg, 1903. Mus. Nac. Buenos Aires An. (3) 2: 406.

Type: (*Energoponus strenuus* Holmberg) = *Ptilothrix plumatus* Smith. Desig. by Sandhouse, 1943.

*Emphor* Patton is a synonym or subgenus of *Ptilothrix* Smith (*teste* Moure, 1947. Soc. Ent. Argentina Rev. 13: 240).

**bombiformis bombiformis** (Cresson), n. comb.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1075, figs. 212-218 (larva).

**bombiformis fuscojubatus** (Cockerell), n. comb.

**Genus DIADASIA Patton, pp. 1219-1220**

\**Leptometria* Holmberg, 1903. Mus. Nac. Buenos Aires An. (3) 2: 409.

Type: *Leptometria pereyrae* Holmberg. Desig. by Brèthes, 1910.

\**Diadasina* Moure, 1950. Dusenian 1: 392.

Type: *Melitoma paraënsis* Ducke. Orig. desig.

\**Diadasiana* (!) Michener, 1954. Amer. Mus. Nat. Hist. Bul. 104: 129.

The categories listed above are synonyms or subgenera of *Diadasia* (*teste* Michener, 1954. Amer. Mus. Nat. Hist. Bul. 104: 129).

**bituberculata** (Cresson). On flowers of *Convolvulus*.

Biology: Linsley and MacSwain, 1952. Pan-Pacific Ent. 28: 131-135.

**consociata** Timberlake. Collecting pollen of *Sida*, and visiting many flowers for nectar.

Biology: Linsley, MacSwain and Smith, 1952. Calif. Univ. Pubs. Ent. 9: 267-290, 6 pls.

**enavata** (Cresson).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1075, figs. 206-211 (larva).

**friesei** Cockerell. Ariz.

**sphaeralcearum sphaeralcearum** Cockerell. Ariz.

\***vestita** Timberlake. N. Mex. (Rio Puerco in Bernalillo Co.).

*Diadasia vestita* Timberlake, 1956. Pan-Pacific Ent. 32: 91. ♂.

**Genus PEPONAPIS Robertson, p. 1221**

The specific name of genotype is *pruinosa*, not *prinosa*.

**Genus XENOGLOSSA Smith, p. 1221**

**fulva** Smith. On flowers of *Cucurbita*.

Biology: Linsley, MacSwain, and Smith, 1955. South. Calif. Acad. Sci. 54: 128-141, 3 pls.

**Genus ANTHEDONIA Michener, p. 1222**

**compta** (Cresson). N. J. and Ga. west to Utah and N. Mex.; Mexico (Durango).

Taxonomy: LaBerge, 1955. Kans. Ent. Soc. Jour. 28: 132, fig. 1. ♂ ♀.



*nevadensis* (Cresson). Tex. west to Calif.; Mexico (Durango). On flowers of *Oenothera*.

*Melissodes smithii* (Dalla Torre) not a valid sp. in *Melissodes* but a syn. of *nevadensis* (*teste* LaBerge, 1955. Kans. Ent. Soc. Jour. 28: 134, fig. 2. ♀ ♂).

**\*Genus GAESISCHIA Michener, LaBerge and Moure**

Place in Eucerini before *Melissodes* Latreille, p. 1222.

**\*GAESISCHIA subgenus GAESISCHIA Michener, LaBerge and Moure**

*Gaesischia* Michener, LaBerge and Moure, 1955. Dusenian 6: 220.

Type: *Svastra fulgurans* Holmberg. Orig. desig.

The typical subgenus occurs only in South America.

**\*GAESISCHIA subgenus GAESISCHIANA Michener, LaBerge and Moure**

*Gaesischia* subg. *Gaesischiana* Michener, LaBerge and Moure, 1955. Dusenian 6: 224.

Type: *Gaesischia (Gaesischiana) exul* Michener, LaBerge and Moure. Orig. desig.

\**exul* Michener, LaBerge and Moure. Ariz. to Guatemala.

*Gaesischia (Gaesischiana) exul* Michener, LaBerge and Moure, 1955. Dusenian 6: 224. ♂.

**Genus MELISSODES Latreille, pp. 1222-1229**

*Eclectica* Holmberg, 1884. Acad. Nac. Cienc. Córdoba Actas 5: 123.

Type: *Eclectica tintinnans* Holmberg. By monotypy.

*Melissodes* subg. *Tachymelissodes* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1170.

Type: *Melissodes dagosa* Cockerell. Orig. desig.

*Melissodes* subg. *Heliomelissodes* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1172.

Type: *Melissodes desponsa* Smith. Orig. desig.

*Melissodes* subg. *Psilomelissodes* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1173.

Type: *Melissodes intorta* Cresson. By monotypy and orig. desig.

*Melissodes* subg. *Apomelissodes* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1175.

Type: *Melissodes fimbriata* Cresson. Orig. desig.

*Melissodes* subg. *Eumelissodes* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1177.

Type: *Melissodes agilis* Cresson. Orig. desig.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1073, figs. 199-205 (larva).—LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1032-1194, 129 figs. (Pt. I of a gen. rev. of North and Centr. Amer. spp.).—LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 533-578, 13 figs. (Pt. II of a gen. rev. treating the subgenera *Tachymelissodes*, *Apomelissodes*, *Psilomelissodes*, *Heliomelissodes*.)

Remove *Epimelissodes* Ashmead from synonymy and transfer to \**Svastra* Holmberg as a valid subgenus. In citation of Robertson's revision in Catalog, change 1895 to 1905.

*agilis* Cresson. Remove *agilis* var. *parksii* Cockerell from syn. and transf. to *Xenoglossodes*, p. 1230, as a valid sp. (*Eumelissodes*)

\**albobincta* Cockerell. Syn. of *opuntiella* Cockerell.

*alopex* Cockerell. A subsp. of *communis* Cresson.

*apicata* Lovell and Cockerell. Maine to Fla. Oligolectic on *Pontederia*; visiting also flowers of *Melilotus*, *Stachys*, *Hydrocotyle* for nectar. (*Apomelissodes*)

*atripes* Cresson. Transf. to *Svastra* subg. *Epimelissodes*.

\**aurescens* Cockerell. Syn. of *tepaneca* Cresson.

*baileyi* Cockerell. Tex. (Fedor). (*Apomelissodes*)

*bimaculata bimaculata* (Lepeletier). Maine west to east. N. Dak. and Colo., south to north. Fla. and east. Tex. On many flowers. (*Melissodes*)  
*Melissodes melanosoma* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1105).

\**bimaculata nulla* LaBerge. South. Fla. and Keys. On flowers of *Lythrum*. (*Melissodes*)  
*Melissodes (Melissodes) bimaculata nulla* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1109. ♂ ♀.

*bishoppi* Cockerell. Transf. to *Xenoglossodes*, p. 1230.

\**blanda* LaBerge. Tex., Okla. On flowers of *Opuntia*, *Borrichia*, *Gaillardia*, *Sphaeralcea*. (*Melissodes*)  
*Melissodes (Melissodes) blanda* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1084. ♂ ♀.

*brevicornis* Cresson. Transf. to *Svastra* subg. *Brachymelissodes*.

*bruesi* Cockerell. Syn. of *tepaneca* Cresson.

*caliginosa* Cresson. Transf. to *Svastra* subg. *Epimelissodes* as a subsp. of *obliqua* (Say).

*calloleuca* Cockerell. Syn. of *dagosa* Cockerell.

*cnici* Robertson. Syn. of *desponsa* Smith.

*comanche* Cresson. Transf. to *Svastra* subg. *Epimelissodes*.

*communis alopex* Cockerell, changed status. South. Calif. to B. C., east to Alta. and Utah. On many flowers. (*Melissodes*)  
*Melissodes alopex* Cockerell. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1059).

*communis communis* Cresson. Southeastern Ariz., north through eastern Colo. and Wyo. to N. Dak. and east through Ill. and Ind. in the north and through Tex. in the south to the Atlantic. On many flowers. (*Melissodes*)  
*Melissodes hortivagans hortivagans* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1053).  
*Melissodes martini* Cockerell (syn. by LaBerge, *loc. cit. supra*).  
*Melissodes xanthopteralis* Cockerell (syn. by LaBerge, *loc. cit. supra*).  
*Melissodes manni* Cockerell (syn. by LaBerge, *loc. cit. supra*).  
*Melissodes hortivagans melanotica* Cockerell (syn. by LaBerge, *loc. cit. supra*).

\**communis gratior* Cockerell. Syn. of *paroselae* Cockerell.

*comptoides* Robertson. N. J. to Fla., west to S. Dak., Colo., Ariz. On many flowers. (*Melissodes*)  
*Melissodes hitei* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1087).

*dagosa* Cockerell. Idaho and Wash. to Calif. and Colo. On flowers of *Asclepias*, *Cirsium*, *Medicago*, *Melilotus*, *Norta*, *Sphaeralcea*, *Thelypodium*. (*Tachymelissodes*)  
*Melissodes calloleuca calloleuca* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 535).

*desponsa* Smith. N. S. to N. C., Ala., west to N. Dak. and Okla. Visiting many flowers. (*Heliomelissodes*)  
*Melissodes nigripes* Smith (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 562).  
*Melissodes cnici* Robertson (syn. by LaBerge, *loc. cit. supra*).

*desponsiformis* Cockerell. Syn. of *rivalis* Cresson.

*duplocincta* Cockerell. Transf. to *Idiomelissodes*.

- \**elusa* LaBerge. ? Ariz. (Huachuca Mts.); Mexico (Chihuahua, Durango, Jalisco, Zacatecas, Puebla, Michoacan, Oaxaca). On flowers of *Gutierrezia*, *Asclepias*. (*Melissodes*)
- Melissodes (Melissodes) elusa* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1061. ♂ ♀.
- epicharina* Cockerell. Syn. of *gilensis gilensis* Cockerell.
- festonata* Provancher. Change *festinata* in sp. heading and in orig. cit. to *festonata*.
- fimbriata* Cresson. Va. to Ga., west to Tex., Kans. On flowers of *Oenothera*, *Kneiffia*, *Helianthus*. (*Apomelissodes*)
- galvestonensis* Cockerell. Syn. of *tepaneca* Cresson.
- georgica* Cresson. Transf. to *Svastra* subg. *Epimelissodes* as a subsp. of *atripes* Cresson.
- gilensis gilensis* Cockerell, changed status. Ariz., N. Mex., Colo. On many flowers. Another subspecies occurs in northern Mexico. (*Melissodes*)
- Melissodes gilensis* Cockerell. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1147).
- Melissodes epicharina* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- grandissima* Cockerell. Transf. to *Svastra* subg. *Epimelissodes*.
- habilis* Cockerell. Syn. of *rivalis* Cresson.
- helenae* Cockerell. Syn. of *paroselae* Cockerell.
- helianthelli* Cockerell. Transf. to *Svastra* subg. *Epimelissodes*.
- hexacantha* Cockerell. Syn. of *rivalis* Cresson.
- hitei* Cockerell. Syn. of *comptoides* Robertson.
- hortivagans hortivagans* Cockerell. Syn. of *communis communis* Cresson.
- hortivagans melanotica* Cockerell. Syn. of *communis communis* Cresson.
- intorta* Cresson. Kans., Tex. On flowers of *Asclepias*, *Callirhoe*, *Gaillardia*, *Rorippa*. (*Psilomelissodes*)
- Melissodes wickhami* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 558).
- kallstroemiae* Cockerell. Syn. of *thelypodii thelypodii* Cockerell.
- loena* Cockerell. Syn. of *tepaneca* Cresson.
- machaerantherae* Cockerell. Transf. to *Svastra* subg. *Epimelissodes*.
- \**maesta* LaBerge. Tex. On flowers of *Monarda*. (*Melissodes*)
- Melissodes (Melissodes) maesta* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1095. ♂ ♀.
- manni* Cockerell. Syn. of *communis communis* Cresson.
- martini* Cockerell. Syn. of *communis communis* Cresson.
- masuca* Cockerell. Syn. of *tepaneca* Cresson.
- melanosoma* Cockerell. Syn. of *bimaculata bimaculata* (Lepeletier).
- \**mittchelli* LaBerge. N. C., Ga., Fla. On flowers of *Opuntia*. (*Apomelissodes*)
- Melissodes (Apomelissodes) mittchelli* LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 556, fig. 7. ♂ ♀.
- mysops* Cockerell. Syn. of *rivalis* Cresson.
- nigripes* Smith. Syn. of *desponsa* Smith.
- nigrosignata* Cockerell. Syn. of *rivalis* Cresson.
- obliqua* (Say). Transf. to *Svastra* subg. *Epimelissodes*.
- opuntiella* Cockerell. Utah, Calif., Ariz., Tex.; Mexico (Coahuila). Visiting many flowers. (*Tachymelissodes*)



- \**Melissodes albocincta* Cockerell, 1919. Ann. Mag. Nat. Hist. (9) 2: 119. ♀. (Syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 539.)
- paroselae* Cockerell. South. Calif. to southwest. Tex.; Mexico (Baja Calif., Sonora, Chihuahua, Nayarit). On many flowers. (*Melissodes*)
- Melissodes helenae* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1151).
- \**Melissodes communis gravior* Cockerell, 1923. Calif. Acad. Sci. Proc. 12: 85. ♀. (Syn. by LaBerge, *loc. cit. supra*.)
- perplexa* Cresson.
- Biology: Mathewson and Daly, 1955. Kans. Ent. Soc. Jour. 28: 120.
- petalostemonis* Robertson. Syn. of *tepaneca* Cresson.
- petulca* Cresson. Transf. to *Svastra* subg. *Epimelissodes*.
- petulciformis* Cockerell. Transf. to *Svastra* subg. *Brachymelissodes* as a syn. of *brevicornis* Cresson.
- pimella* Cockerell. Transf. to *Xenoglossodes*, p. 1230.
- rivalis* Cresson. B. C. and Calif. east to Man., Minn., south to Ariz., N. Mex. and Tex. Visiting many flowers. (*Heliomelissodes*)
- Melissodes desponsiformis* Cockerell (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 38: 568).
- Melissodes mysops* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- Melissodes hexacantha* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- Melissodes nigrosignata* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- Melissodes habilis* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- rustica* (Say). In orig. cit. of *rustica* change 1937 to 1837.
- sabinensis* Cockerell. Transf. to *Svastra* subg. *Epimelissodes*.
- smithii* (Dalla Torre). Transf. to *Anthedonia* as a syn. of *nevadensis* (Cresson), p. 1222.
- sphaeralceae* Cockerell. Ariz., N. Mex., Tex.; Mexico (Dist. Fed.). On flowers of *Monarda*, *Sphaeralcea*. (*Tachymelissodes*)
- spissa* Cresson. Transf. to *Xenoglossodes*, p. 1230.
- suavis* Cresson. Transf. to *Tetralonia*, p. 1233.
- suffusa* Cresson. Transf. to *Svastra* subg. *Epimelissodes* as a subsp. of *petulca* Cresson.
- \**tepaneca aschenborniana* Cockerell. Syn. of *tepaneca* Cresson.
- \**tepaneca* Cresson. Kans., Ill. and N. C. south through Tex and Mexico to Panama. On many flowers. (*Melissodes*)
- Melissodes tepaneca* Cresson, 1878. Acad. Nat. Sci. Phila. Proc. 30: 210. ♀ in part (♂ misdet.).
- Melissodes petalostemonis* Robertson (syn. by LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1130).
- Melissodes galvestonensis* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- Melissodes bruesi* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- Melissodes loena* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- Melissodes masuca* Cockerell (syn. by LaBerge, *loc. cit. supra*).
- \**Melissodes tepaneca aschenborniana* Cockerell, 1912. Ann. Mag. Nat. Hist. (8) 10: 28. ♂. (Syn. by LaBerge, *loc. cit. supra*.)
- \**Melissodes aurescens* Cockerell, 1949. U. S. Natl. Mus. Proc. 98: 462. ♀. (Syn. by LaBerge, *loc. cit. supra*.)
- tepida tepida* Cresson, changed status. North. Utah to Calif. (Sierra Nevada Mts.), north to south. Idaho and northwest. Oreg. On flowers of *Asclepias*, *Astragalus*, *Glycyrrhiza*, *Helianthus*, *Medicago*, *Melilotus*, *Mentha*, *Trifolium*. (*Melissodes*)
- Melissodes tepida* Cresson. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1123).

**tepida timberlakei** Cockerell, changed status. South. Calif. northeast to Sierra Mts., north to southern Oreg. west of Sierras. On many flowers. (*Melissodes*)

*Melissodes timberlakei* Cockerell. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1125).

\***tepida yumensis** LaBerge. Southeast. Calif., south. Nev., southwest. Utah, Ariz.; Mexico (Baja Calif.). On flowers of *Aster*, *Cercidium*, *Chilopsis*, *Citrullus*, *Gossypium*, *Lippia*, *Medicago*, *Melilotus*, *Salix*, *Sida*, *Sphaeralcea*. (*Melissodes*)

*Melissodes (Melissodes) tepida yumensis* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1128. ♂ ♀.

\***tessellata** LaBerge. South. coastal Calif.; Mexico (Baja Calif., Jalisco). On many flowers. (*Melissodes*).

*Melissodes (Melissodes) tessellata* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1157, figs. 101-103. ♂ ♀.

**texana texana** Cresson. Transf. to *Svastra* subg. *Epimelissodes*.

**thelypodii thelypodii** Cockerell, changed status. West Tex. to southeast. Calif.; Mexico (Chihuahua, Coahuila, Durango). On many flowers. (*Melissodes*)

*Melissodes thelypodii* Cockerell. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1071).

*Melissodes kallstroemiae* Cockerell (syn. by LaBerge, *loc. cit. supra*).

*Melissodes thurberiae* Cockerell (syn. by LaBerge, *loc. cit. supra*).

**thurberiae** Cockerell. Syn. of **thelypodii thelypodii** Cockerell.

**timberlakei** Cockerell. A subsp. of **tepida** Cresson.

**townsendi** Cockerell. Transf. to *Svastra* subg. *Epimelissodes* as a syn. of *petulca suffusa* Cresson.

**wickhami** Cockerell. Syn. of **intorta** Cresson.

**xanthopteralis** Cockerell. Syn. of **communis communis** Cresson.

### \*Genus *SVASTRA* Holmberg

Taxonomy: Michener, LaBerge and Moure, 1955. *Dusenian* 6: 219-220.—  
Moure and Michener, 1955. *Dusenian* 6: 294-298.

Place before *Xenoglossodes* Ashmead, p. 1229. The subgenera *Brachymelissodes* LaBerge and *Epimelissodes* Ashmead, placed in *Melissodes* LaBerge by LaBerge, 1956 (*Univ. Kans. Sci. Bul.* 37: 926-1032), actually belong to *Svastra* Holmberg. *Epimelissodes* was assigned to *Svastra* by Michener, LaBerge and Moure, 1955, and W. E. LaBerge (in litt.) states that *Brachymelissodes* also belongs in *Svastra*.

### \**SVASTRA* subgenus *SVASTRA* Holmberg

*Svastra* Holmberg, 1884. *Acad. Nac. Cienc. Córdoba Actas* 5: 127.

Type: *Svastra bombilans* Holmberg. Orig. desig.

The typical subgenus does not occur in North America.

### \**SVASTRA* subgenus *BRACHYMELISSODES* LaBerge

*Melissodes* subg. *Brachymelissodes* LaBerge, 1956. *Kans. Univ. Sci. Bul.* 37: 926.

Type: (*Eucera cressonii* Dalla Torre) = *Melissodes brevicornis* Cresson. Orig. desig.

**brevicornis** (Cresson), n. comb. South. Nebr. and east. Colo. south to Tex.; Mexico (Durango). On flowers of *Helianthus*, *Cardia*, *Vernonia*, *Polygonum*, *Euphorbia*. Transf. from *Melissodes*, p. 1223.

*Melissodes petulciformis* Cockerell (syn. by LaBerge, 1956. *Kans. Univ. Sci. Bul.* 37: 928).

**SYASTRA subgenus EPIMELISSODES Ashmead**  
 (= *Melissodes* Latreille, in part, pp. 1222-1229)

- \*aegis** (LaBerge). Tex. to Fla., north to N. C. On flowers of *Aster*, *Gaillardia*, *Helenium*, *Helianthus*, *Vernonia*.  
*Melissodes (Epimelissodes) aegis* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 959. ♂ ♀.
- \*atripes atrimitra** (LaBerge). N. J. south to Fla., Ala., Miss. Visiting many flowers.  
*Melissodes (Epimelissodes) atripes atrimitra* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 949. ♂ ♀.
- atripes atripes** (Cresson), changed status. N. Mex. and Colo. east to Ill., Mo., La. Visiting many flowers.  
*Melissodes atripes* Cresson. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 948) and transf. from *Melissodes*, p. 1223. N. b., *atripes* var. *acomanche* Cockerell is a syn. of *grandissima* Cockerell, not of *atripes*.
- atripes georgica** (Cresson), changed status. East coast of Fla., Ga.  
*Melissodes georgica* Cresson. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 951) and transf. from *Melissodes*, p. 1225.
- comanche** (Cresson). On flowers of *Ximenesia encelioides*. Transf. from *Melissodes*, p. 1224.
- grandissima** (Cockerell). Southeast. Tex. On flowers of *Ximenesia encelioides*.  
*Melissodes atripes* var. *acomanche* Cockerell. A syn. of *grandissima* not of *atripes atripes* (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 954) and transf. from *Melissodes*, p. 1225.
- helianthelli** (Cockerell). Calif., Ariz., Tex., Kans.; Mexico (Baja Calif.). On flowers of *Helianthus*. Transf. from *Melissodes*, p. 1225.
- machaerantherae** (Cockerell). Tex. (El Paso); Mexico (Chihuahua, Coahuila, Sonora). On flowers of *Machaeranthera*, *Cucurbita*, *Asclepias*, *Helianthus*, *Verbesina*, *Wislizenia*. Remove *obliqua* var. *expurgata* Cockerell from syn. and place it as a subsp. of *obliqua* (Say). Transf. from *Melissodes*, p. 1226.
- obliqua caliginosa** (Cresson), changed status. N. J. to Ga. On flowers of *Borrichia*, *Helenium*, *Helianthus*, *Vernonia*.  
*Melissodes caliginosa* Cresson. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 984) and transf. from *Melissodes*, p. 1227.
- obliqua expurgata** (Cockerell), changed status. Wash. and Idaho south to Calif., Colo. and Ariz.; Mexico (Baja Calif.) On many flowers.  
*Melissodes machaerantherae* Cockerell of Catalog, in part. *M. obliqua* var. *expurgata* Cockerell is a subsp. of *obliqua* not a syn. of *machaerantherae* (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 991).
- obliqua obliqua** (Say), changed status. Southern Ont. and eastern Mont., south to N. Mex. and N. J.; west of the Appalachians to Fla.; Mexico (Tamaulipas, Coahuila). On many flowers.  
*Melissodes obliqua* (Say). Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 986) and transf. from *Melissodes*, p. 1227.
- petulca petulca** (Cresson), changed status. Eastern Tex. north through Kans. to Ill., east to Fla., and north along coast to N. J. On many flowers.  
*Melissodes petulca* Cresson. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1012) and transf. from *Melissodes*, p. 1227.



**petulca suffusa** (Cresson), changed status. Tex. and Kans. west to Colo. and Ariz.; Mexico (Chihuahua, Nuevo Leon, Tamaulipas). On many flowers.

**Melissodes suffusa** Cresson of Catalog, in part. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1015) and transf. from **Melissodes**, p. 1227. N. b., *suffusa* var. *laterufa* Cockerell is a subsp. of **sabinensis** Cockerell, not a syn. of *suffusa*.

**Melissodes townsendi** Cockerell (syn. by LaBerge, *loc. cit. supra*).

**sabinensis laterufa** (Cockerell), changed status. Tex., N. Mex., ? Ariz.; Mexico (Coahuila, Durango).

**Melissodes suffusa** Cresson of Catalog, in part. **M. suffusa** var. *laterufa* Cockerell is a subsp. of **sabinensis**, not a syn. of *suffusa* (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1021). Transf. from **Melissodes**, p. 1228.

**\*sabinensis nubila** (LaBerge). South. Calif.; Baja Calif. On flowers of *Gutierrezia*, *Helianthus*, *Encelia*, *Heterotheca*, *Senecio*, *Chrysanthemum*, *Corethrogyne*, *Hemizonia*, *Coreopsis*, *Stephanomeria*, *Isocoma*, *Bebbia*.

**Melissodes (Epimelissodes) sabinensis nubila** LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1024. ♂ ♀.

**sabinensis sabinensis** (Cockerell), changed status. Ariz., N. Mex. On many flowers.

**Melissodes sabinensis** Cockerell. Reduced to subsp. rank (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1023) and transf. from **Melissodes**, p. 1228.

**\*sila** (LaBerge). Ariz., Tex.; Mexico (Chihuahua). On flowers of *Psilostrophe*, *Baileya*, *Kallstroemia*.

**Melissodes (Epimelissodes) sila** LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1002. ♂ ♀.

**\*texana eluta** (LaBerge). Deserts of south. Calif., Ariz.; Mexico (Chihuahua, Coahuila). On flowers of *Asteraginus*, *Helianthus*, *Heterotheca*.

**Melissodes (Epimelissodes) texana eluta** LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1000. ♂ ♀.

**texana texana** (Cresson). Kans., Okla., N. Mex. Delete Miss. from range. On flowers of *Chrysothamnus*, *Flaveria*, *Helianthus*, *Prionopsis*. Transf. from **Melissodes**, p. 1229.

#### \*Genus IDIOMELISSODES LaBerge

**Melissodes** subg. **Idiomelissodes** LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1027.

Type: **Melissodes duplocincta** Cockerell. By monotypy and orig. desig.

W. E. LaBerge, 1957 (Amer. Mus. Novitates 1837: 23-25), raises **Idiomelissodes** to generic rank. Place before **Xenoglossodes** Ashmead, p. 1229.

**duplocincta** (Cockerell), n. comb. Calif. (Colorado Desert); Mexico (Chihuahua, Coahuila). On flowers of *Cevalia*, *Eriogonum*, *Gossypium*, *Sphaeralcea*, *Echinocactus*. Transf. from **Melissodes**, p. 1224.

#### Genus XENOGLOSSODES Ashmead, pp. 1229-1230

**arizonica** Cockerell. Calif. (Imperial Co.).

**bishoppi** (Cockerell). Transf. from **Melissodes**, p. 1223 (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1179).

**parksii** (Cockerell). Transf. from **Melissodes**, p. 1222, where it was placed as a syn. of **agilis** Cresson (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1179).

**pimella** (Cockerell). Transf. from **Melissodes**, p. 1228 (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1179).

**spissa** (Cresson). Transf. from **Melissodes**, p. 1228 (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1178).

**Genus TETRALONIA Spinola, pp. 1230-1233**

*suavis* (Cresson). Transf. from *Melissodes*, p. 1228 (*teste* LaBerge, 1956. Kans. Univ. Sci. Bul. 37: 1178).

**ANTHOPHORA subgenus ANTHOPHORA Latreille, pp. 1233-1237**

Taxonomy: Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 51-62 (key to western spp.).

*abrupta* Say.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1080, figs. 232, 233 (larva).

*affabilis* Cresson. Utah.

*bomboides neomexicana* Cockerell. Calif. (Mono Co.).

*bomboides stanfordiana* Cockerell.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1007 and 1078, figs. 7-15, 219-222, 225 (larva).

*californica californica* Cresson. Add ♂ after orig. cit. of *5-fasciata* Provancher.

\**coptognatha* Timberlake. Ariz., Calif. On flowers of *Lycium*, *Lantana*, *Dalea*, *Prosopis*.

*Anthophora coptognatha* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 54. ♂ ♀.

*edwardsii edwardsii* Cresson, changed status.

*Anthophora (Anthophora) edwardsii* Cresson. Reduced to subsp. rank (*teste* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 62).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1080, figs. 228, 234, 235 (larva).

*edwardsii gohrmanae* Cockerell, changed status.

*Anthophora gohrmanae* Cockerell. Reduced to subsp. rank (*teste* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 62).

*forbesi* Cockerell. Calif.; Baja Calif.

Taxonomy: Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 59. ♂.

\**fulvicollis* Timberlake. Calif., Ariz.

*Anthophora fulvicollis* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 59. ♂.

*gohrmanae* Cockerell. A subsp. of *edwardsii* Cresson.

*linsleyi* Timberlake.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1082, figs. 227, 236, 237 (larva).

*occidentalis* Cresson. Ariz.

Biology: Porter, 1951. Iowa State Coll. Jour. Sci. 26: 23-30, 19 figs.

*pacifica infernalis* (Dalla Torre). Change *Podalirius pacifica infernalis* Dalla Torre to *Podalirius infernalis* Dalla Torre.

\**pernicis* Timberlake. Ariz., Nev. On flowers of *Ribes*.

*Anthophora pernicis* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 58. ♂.

*phenax* (Cockerell). Transf. to subg. *Micranthophora*, p. 1239.

\**platti* Timberlake. South. Calif. On flowers of *Lantana* and *Salix*.

*Anthophora platti* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 60. ♂ ♀.

*pyralitarsis* Dours. Syn. of *ursina ursina* Cresson.

*urbana urbana* Cresson.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1080, figs. 223, 224, 226 (larva).

*ursina simillima* Cresson. Calif.

*ursina ursina* Cresson.

*Anthophora pyralitarsis* Dours. (syn. by Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 57).

- \**vannigera* Timberlake. Calif., Ariz. On flowers of *Phacelia*, *Lycium*, *Isomeris*.  
*Anthophora vannigera* Timberlake, 1951. N. Y. Ent. Soc. Jour. 59: 56. ♂.

**ANTHOPHORA subgenus CLISODON Patton, p. 1237**

- furecata syringae* (Cockerell).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1082, figs. 229-231 (larva).

**ANTHOPHORA subgenus MICRANTHOPHORA Cockerell, pp. 1238-1239**

- \**estebana* Cockerell. South. Calif. deserts; Baja Calif.

*Anthophora estebana* Cockerell, 1923. Calif. Acad. Sci. Proc. (4) 12: 81. ♂.

- phenax* (Cockerell). Calif. Transf. from subg. *Anthophora*, p. 1236.

**Genus EMPHOROPSIS Ashmead, pp. 1239-1240**

- birkmanni* Cockerell. Change heading Taxonomy to read Taxonomy and Biology.

- miserabilis* (Cresson). Wash.; Baja Calif.

- rugosissima* Cockerell. Calif.

**Genus HEMISIA Klug, pp. 1240-1241**

- \**Xanthemisia* Moure, 1945. Rev. de Ent. 16: 401.

Type: *Centris bicolor* Lepeletier. Orig. desig.

- \**Paremisia* Moure, 1945. Rev. de Ent. 16: 406.

Type: *Centris lineolata* Lepeletier. Orig. desig.

- \**Hemisiella* Moure, 1945. Rev. de Ent. 16: 407.

Type: *Apis lanipes* Fabricius. Orig. desig.

- \**Centris* subg. *Wagenknechtia* Moure, 1950. Dusenía 1: 389.

Type: *Centris cineraria* Smith. Orig. desig.

- \**Centris* subg. *Penthemisia* Moure, 1950. Dusenía 1: 390.

Type: *Hemisia Chilensis* Spinola. Orig. desig.

- \**Centris* subg. *Trichocentris* Snelling, 1956. Pan-Pacific Ent. 32: 4.

Type: *Centris rhodoleuca* Cockerell. Orig. desig.

Taxonomy: Michener, 1951. Kans. Ent. Soc. Jour. 24: 1-11 (subg. grouping).

- aterrima* (Smith). (*Penthemisia*)

- atripes atripes* (Mocsáry). (*Penthemisia*)

- birkmannii* (Friese). (*Penthemisia*)

- caesalpiniae* (Cockerell). (*Penthemisia*)

- californica* (Timberlake). (*Penthemisia*)

- hoffmanseggiae davidsoni* (Cockerell). (*Penthemisia*)

- hoffmanseggiae hoffmanseggiae* (Cockerell). (*Penthemisia*)

- lanosa lanosa* (Cresson). (*Penthemisia*)

*Hemisia subhyalina* (Fox). The opposite sex of *l. lanosa* (teste P. H. Timberlake, in litt.).

- lanosa resoluta* (Cockerell). (*Penthemisia*)

- morsei* (Cockerell). (? *Trichocentris*)

- pallida* (Fox). (*Penthemisia*)

- rhodoleuca* (Cockerell). (*Trichocentris*)

- rhodomelas* (Timberlake). (*Penthemisia*)

- rhodopus* (Cockerell). (*Penthemisia*)

- subhyalina* (Fox). Syn. of *lanosa lanosa* (Cresson).



*tiburonus* (Cockerell). (*Penthemisia*)

*versicolor* (Fabricius). (*Hemisia*)

### Tribe MELECTINI

Taxonomy: Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 119-140, 1 pl., 5 maps (Calif. spp.).

#### MELECTA subgenus MELECTA Latreille, p. 1242

*atlantica* Linsley. A subsp. of *pacifica* Cresson.

*fulvida* Cresson. A subsp. of *pacifica* Cresson.

*pacifica atlantica* Linsley, changed status. Kans., Mo., Ala.

*Melecta (Melecta) atlantica* Linsley. Reduced to subsp. rank (*teste* Michener, 1954. Kans. Ent. Soc. Jour. 27: 66).

*pacifica fulvida* Cresson, changed status. Utah. Host: *Anthophora pacifica infernalis* (D. T.).

*Melecta (Melecta) fulvida* Cresson. Reduced to subsp. rank (*teste* Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 128).

*pacifica pacifica* Cresson, changed status.

*Melecta (Melecta) pacifica* Cresson. Reduced to subsp. rank (*teste* Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 127).

*sierrae* Linsley. Syn. of *thoracica* Cresson.

*thoracica* Cresson. Wash., Oreg., Calif., Wyo., Utah, Nebr., Kans. Host: *Emphoropsis cineraria* (Sm.)

*Melecta (Melecta) sierrae* Linsley (syn. by Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 126).

#### MELECTA subgenus MELECTOMIMUS Linsley, p. 1242

*edwardsii* Cresson. Baja Calif.

#### Genus XEROMELECTA Linsley, p. 1243

Raised to generic rank (*teste* Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 119). Contains two subgenera, *Xeromelecta* Linsley and *Melectomorpha* Linsley.

#### XEROMELECTA subgenus MELECTOMORPHA Linsley, p. 1243

*californica* (Cresson), changed status.

*Melecta (Melectomorpha) californica californica* Cresson. Raised to sp. rank (*teste* Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 128).

*Melecta (Melectomorpha) californica miranda* Fox (syn. by Hurd and Linsley, *loc. cit. supra*).

*Melecta (Melectomorpha) pasadenensis* (Cockerell) syn. by Hurd and Linsley, *loc. cit. supra*).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1083, figs. 238-242 (larva).

*californica miranda* (Fox). Syn. of *californica* (Cresson).

*interrupta* (Cresson). Mexico (Chihuahua, Durango, Zacatecas).

*Melecta (Melectomorpha) rociadensis* Cockerell (syn. by Hurd and Linsley, 1951. Calif. Ins. Survey Bul. 1: 133).

*pasadenensis* (Cockerell). Syn. of *californica* (Cresson).

*rociadensis* (Cockerell). Syn. of *interrupta* (Cresson).

#### Genus ZACOSMIA Ashmead, p. 1243

*maculata maculata* (Cresson). Utah, Wyo. Host: *Anthophora (Micranthophora) arthuri* Ckll.

**\*Genus MESOPLIA Lepeletier**

*Mesoplia* Lepeletier, 1841. Hist. Nat. Ins. Hym., v. 2, p. 457.

Type: *Mesocheira azurea* Lepeletier and Serville. By monotypy.

\**Melissa* Smith, 1854. Cat. Hym. Brit. Mus. 2: 279.

Type: *Mesocheira azurea* Lepeletier and Serville. Desig. by Sandhouse, 1943.

Place in Ericrocini after *Ericrocis* Cresson, p. 1244.

\**dugesi* (Cockerell), n. comb. South. Ariz.; Mexico.

*Mesonychium dugesi* Cockerell, 1917. Ann. Mag. Nat. Hist. (8) 19: 477. ♂.

**CERATINA subgenus CERATINA Latreille, p. 1244**

The typical subgenus is Palaearctic.

**\*CERATINA subgenus CERATINULA Moure**

*Ceratinula* Moure, 1941. Mus. Paranaense Arq. 1: 78.

Type: *Ceratina lucidula* Smith. Orig. desig.

The North American forms placed in the subgenus *Ceratina* in the Catalog belong in *Ceratinula*.

**CERATINA subgenus ZADONTOMERUS Ashmead, pp. 1244-1245**

*dupla* Say.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1063, figs. 173-179 (larva).

\**punctigena* Cockerell. Calif. (Los Angeles and San Diego Cos.).

*Ceratina neomexicana punctigena* Cockerell, 1916. Pomona Jour. Ent. Zool. 8: 62. ♀.

Taxonomy: Michener, 1936. Amer. Mus. Novitates 844: 5. ♀ ♂.

**Genus XYLOCOPA Latreille, pp. 1245-1246**

*Xylocopa* subg. *Xylocopoides* Michener, 1954. Amer. Mus. Nat. Hist. Bul. 104: 155.

Type: *Apis virginica* Linnaeus. Orig. desig.

*Xylocopa* subg. *Neoxylocopa* Michener, 1954. Amer. Mus. Nat. Hist. Bul. 104: 157.

Type: *Apis brasilianorum* Linnaeus. Orig. desig.

*Xylocopa* subg. *Notoxylocopa* Hurd, 1956. Amer. Mus. Novitates 1776: 2.

Type: *Xylocopa tabaniformis* Smith. Orig. desig.

Taxonomy: Hurd, 1955. Calif. Ins. Survey Bul. 4: 35-72, 4 pls., 4 maps (Calif. spp., key to U. S. spp.).

\**artifex* Smith. Mts. of south. Ariz. to Argentina. (*Neoxylocopa*)

*Xylocopa artifex* Smith, 1874. Ent. Soc. London Trans., p. 289. ♀.

\**Xylocopa erratica* Smith, 1874. Ent. Soc. London Trans., p. 293. ♂.

*brasilianorum brasilianorum* (Linnaeus). (*Neoxylocopa*)

*brasilianorum varipuncta* Patton. (*Neoxylocopa*)

*californica arizonensis* Cresson. (*Xylocopoides*)

*californica californica* Cresson. (*Xylocopoides*)

\**californica diamesa* Hurd. Cent. and south. coast ranges of Cismont. Calif.; Baja Calif. (*Xylocopoides*)

*Xylocopa californica diamesa* Hurd, 1954. Pan-Pacific Ent. 30: 202. ♂ ♀.

\**loripes* Smith. Southeast. Ariz.; Mexico. (*Schönherria*)

*Xylocopa loripes* Smith, 1874. Ent. Soc. London Trans., p. 298. ♂.

\**Xylocopa formosa* Smith, 1874. Ent. Soc. London Trans., p. 299. ♀.

*micans* Lepeletier. (*Schönherria*)

*orpifex androleuca* Michener. A subsp. of *tabaniformis* Smith.

*orpifex orpifex* Smith. A subsp. of *tabaniformis* Smith.

*tabaniformis androleuca* Michener, changed status. (*Notoxylocopa*)

*Xylocopa orpifex androleuca* Michener. Reduced to subsp. rank (*teste* Hurd, 1955. Calif. Ins. Survey Bul. 4: 58).

*tabaniformis orpifex* Smith, changed status. (*Notoxylocopa*)

*Xylocopa orpifex orpifex* Smith. Reduced to subsp. rank (*teste* Hurd, 1955. Calif. Ins. Survey Bul. 4: 53).

*tabaniformis parkinsoniae* Cockerell. (*Notoxylocopa*)

*texana* Cresson. A subsp. of *virginica* (Linnaeus).

*virginica texana* Cresson, changed status. (*Xylocopoides*)

*Xylocopa texana* Cresson. Reduced to subsp. rank (*teste* Hurd, 1955. Calif. Ins. Survey Bul. 4: 51).

*virginica virginica* (Linnaeus), changed status. Delete ref. to *Apis griseo-collis* Degeer, a valid sp. of *Bombus* subg. *Separatobombus*, p. 1248. (*Xylocopoides*)

*Xylocopa virginica* (Linnaeus). Reduced to subsp. rank (*teste* Hurd, 1955. Calif. Ins. Survey Bul. 4: 50).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1062, figs. 167-172 (larva).

### Tribe BOMBINI

Taxonomy: Ritcher, 1933. Ent. Soc. Amer. Ann. 26: 53-63, 33 figs. (larvae).

#### **BOMBUS** subgenus **SEPARATOBOMBUS** Frison, p. 1248

*crotchii crotchii* Cresson. Transf. to subg. \**Crotchiiibombus* Franklin.

*crotchii* var. *nigricaudus* (Frison). Transf. to subg. \**Crotchiiibombus* Franklin.

*crotchii semisuffusus* Cockerell. Transf. to subg. \**Crotchiiibombus* Franklin.

#### \***BOMBUS** subgenus **CROTCHIIIBOMBUS** Franklin

*Bombus* subg. *Crotchiiibombus* Franklin, 1954. Amer. Ent. Soc. Trans. 80: 51.

Type: *Bombus crotchii* Cresson. Orig. desig.

Place after subgenus *Separatobombus* Frison, p. 1248.

*crotchii crotchii* Cresson. Transf. from subg. *Separatobombus*, p. 1248.

*crotchii* var. *nigricaudus* (Frison). Transf. from subg. *Separatobombus*, p. 1248.

*crotchii semisuffusus* Cockerell. Transf. from subg. *Separatobombus*, p. 1248.

#### **BOMBUS** subgenus **FERVIDOBOMBUS** Skorikov, p. 1249

*americanorum* (Fabricius).

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1087, figs. 248-253 (larva).

#### \***BOMBUS** subgenus **PYROBOMBUS** Dalla Torre

(= *Pratobombus* Vogt, pp. 1250-1253)

\**Bombus* subg. *Pyrobombus* Dalla Torre, 1880. Der Naturhistoriker 2: 40.

Type: *Apis hypnorum* Linnaeus. By monotypy.

\**Bombus* subg. *Poecilobombus* Dalla Torre, 1882. Naturw.-med. Ver. Innsbruck Ber. 12: 23.

Type: *Bombus sitkensis* Nylander. Desig. by Sandhouse, 1943.

\**Bombus* subg. *Pyrrohobombus* Dalla Torre, 1882. Naturw.-med. Ver. Innsbruck Ber. 12: 28. Emendation of *Pyrobombus* Dalla Torre.

This subgeneric name replaces Subgenus *Pratobombus* Vogt, pp. 1250-1253, which is a synonym (*teste* Michener, 1954. Amer. Mus. Nat. Hist. Bul. 104: 163).



\**impatiens* var. *deayi* Chandler. Ind., Mo.

*Bombus impatiens* var. *deayi* Chandler, 1956 (1955). Ind. Acad. Sci. Proc. 65: 116. ♀.

*vosnesenskii* Radoszkowski.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1089, fig. 254 (larva).

#### **BOMBUS subgenus ALPINOBOMBUS Skorikov, pp. 1253-1254**

*arcticus* Kirby. Arctic America.

*Bombus (Alpinobombus) hyperboreus* Schönherr of Catalog, in part. A valid sp., not a syn. of *hyperboreus* (teste Richards, 1931. Tromsø Mus. Arshefter 50, no. 6, p. 10).

\**arcticus* var. *groenlandicus* Smith. N. W. T., Greenland.

*Bombus Groenlandicus* Smith, 1854. Cat. Hym. Brit. Mus., v. 2, p. 393. ♀.

*arcticus* var. *polaris* Curtis. N. W. T. A var. of *arcticus*, not a syn. of *balteatus* Dahlbom (teste Yarrow, 1955. Ann. Mag. Nat. Hist. (12) 8: 152).

*balteatus* Dahlbom. Delete *polaris* Curtis from syn., a var. of *arcticus* Kirby.

\**hyperboreus clydensis* Yarrow. N. W. T. (Baffin Is.).

*Bombus (Alpinobombus) hyperboreus clydensis* Yarrow, 1955. Ann. Mag. Nat. Hist. (12) 8: 150. ♀ ♂.

\**hyperboreus eskimo* Skorikov. Syn. of *hyperboreus natvigi* Richards.

\**hyperboreus eskimo* mod. *henrikseni* Skorikov. Syn. of *hyperboreus natvigi* Richards.

*hyperboreus hyperboreus* Schönherr, changed status. Arctic America and west. Arctic Europe. Delete *arcticus* Kirby, a valid sp., from syn.

*Bombus hyperboreus* Schönherr of Catalog, in part (teste Yarrow, 1955. Ann. Mag. Nat. Hist. (12) 8: 151).

\**hyperboreus natvigi* Richards. Greenland.

*Bombus hyperboreus* var. *natvigi* Richards, 1931. Tromsø Mus. Arshefter 50, no. 6, p. 9. ♂.

\**Alpinibombus* (!) *hyperboreus eskimo* Skorikov, 1937. Ent. Meddel. 20: 57. ♂. N. syn. (Skorikov considered *natvigi* to be a modification of *eskimo*.)

\**Alpinibombus* (!) *hyperboreus eskimo* mod. *henrikseni* Skorikov, 1937. Ent. Meddel. 20: 57. ♂. N. syn.

#### **Unplaced Species in Genus Psithyrus, p. 1255**

\**dorsalis* (Provancher). Canada (Ottawa).

*Apathus dorsalis* Provancher, 1888. Addit. Corr. Faune Ent. Canada Hym., p. 343. ♀.

#### **Genus APIS Linnaeus, p. 1255**

*mellifera* Linnaeus.

Taxonomy: Michener, 1953. Kans. Univ. Sci. Bul. 35: 1094, figs. 275-280 (larva).

Morphology: Snodgrass, 1956. Anatomy of the Honey Bee, 334 pp., 107 figs.

General: Ribbands, 1953. The Behaviour and Social Life of Honeybees, 352 pp., 9 pls., 66 figs.—Butler, 1954. The World of the Honeybee, 226 pp. 40 pls.—von Frisch, 1955. The Dancing Bees (Amer. ed.), 183 pp., 30 pls., 61 figs.

## CORRECTIONS TO THE CATALOG INDEX

This section was prepared as follows: Symphyta and Chalcidoidea by B. D. Burks; Ichneumonidea and Proctotrupoidea by C. F. W. Muesebeck; and Cynipoidea and Aculeata by Miss Irmgard Muller.

Throughout, Girault should be abbreviated Grlt. rather than Gir.; the latter has prior usage for Giraud. Walley should be abbreviated Wly. rather than Wall. De Geer should be abbreviated De G. rather than Deg.

- p. 1258 Aderason Tow. & Tow. Change to Aderaeon.  
Aglaojoppidea Vier. Change to *Aglaojoppidea*.
- p. 1259 Antillaemyrmex Mann. Change to *Antillaemyrmex*.
- p. 1260 Arrhenoclavus Doutt. Change to *Arrhenoclavus*.
- p. 1261 Brachistes Wesm. Change to *Brachistes*.  
*Brachysticha*. Change Hal. to Foerst.
- p. 1262 *Callitriche*. Change Nees to Agassiz.  
Calyptus Hal. Change to *Calyptus*.
- p. 1263 *Chamerpes* Foerst. Change p. 248 to 247.  
*Chasmias* Ashm. Change to *Chasmias*.  
Cimbex Oliv. Add p. 18.  
Cotyledon Brad. Change to *Cotyledon*.  
Crematogaster Lund. Add p. 808.
- p. 1264 Cryptapanteles Vier. Change to *Cryptapanteles*.  
Ctenopelma Holmb. Change to Holmg.  
*Cryptocheilus* Panz. Change p. 911 to 912.
- p. 1266 Encyrtinae. Change p. 474 to 475.  
Epihosoma Cress. Change to Eiphosoma.
- p. 1267 add *Eubadizus* Nees . . . . . p. 112.  
Eubazus Nees. Change to *Eubazus*.
- p. 1268 Gamosecus Prov. Change to *Gamosecus*.
- p. 1268 *Habrolepisthia* Mercet. Change to *Habrolepistia*.  
Harmolita. Change D. T. to Mots.  
*Harmolyta*. Change Mots. to D. T.
- p. 1270 Joppinae. Change to *Joppinae*.  
*Lagarotis* Thoms. Change to *Lagarotus*.  
Lampretatus Wlkr. Change to *Lampretatus* Wlkr.  
add *Lathrolestus* Thoms. . . . . p. 328.
- p. 1271 Liomonethe Tow. Change to Limonethe.  
add *Lionotulus* Blüth. . . . . p. 897.  
Lisitheria Cam. Change to *Lisitheria*.  
add *Lycaotella* Ross . . . . . p. 62.  
*Macroneura*. Change Wlkr. to Blanch.
- p. 1272 *Megalarismus*. Change Wlkr. to Schulz.  
*Mehelyella* Mocz. Change p. 598 to 898.
- p. 1273 *Microplectron* Foerst. Change p. 320 to 230.  
*Mionotropis*. Change Thoms. to Schulz.  
*Mnioes* Tow. Change to *Mnioes*.  
Morodora Gah. Change p. 554 to 544.  
add *Mymar* Amer. auctt. . . . . p. 418.  
*Neocrema* Sants. Change to *Neocrema*.
- p. 1274 *Omalocerus* Giraud. Change to *Omaloceros*.  
Omorga Thoms. Change to *Omorga*.

- p. 1275 *Oxystoglossa* Sm. Change p. 125 to 1125.  
*Paralaelius* Kief. Change to *Paralaelius*.
- p. 1276 Patasson. Change Hal. to Wlkr.  
*Pentarthrum*. Change Pack. to D. T.
- p. 1277 *Platyterma* Wlkr. Change to *Platyterma* Wlkr.
- p. 1278 *Proaspicara* Kief. Change to *Prosaspicara*.  
*Pseudacriasoides* Grlt. Change to *Pseudacriasoides*.
- p. 1279 *Rhysapis* Tischb. Change to *Rhysaspis*.
- p. 1280 *Sympiezus*. Change Foerst. to Thoms.
- p. 1281 add *Syzeucta* Thoms. . . . . p. 315.
- p. 1282 *Tetraspilus* Kief. Change to *Tetrapsilus*.  
Thymaridini. Change to *Thymaridini*.  
*Trichocalymma* Foerst. Change p. 221 to 222.
- p. 1283 *Urogaster* Ashm. Change to *Urogaster*.  
*Xeris* Costa. Change to *Xeris* Costa.
- p. 1284 *Zagrammatosoma*. Change Ashm. to Schulz.  
add *Zaphleges* Foerst. . . . . p. 248.  
*Zatypota* Foerst. Change p. 193 to 194.
- p. 1285 *abundans* Kinsey. Change to *abundans*.  
*accentus* (Sandh.). Change to *accentum*.
- p. 1286 *acmaea* Vier. Change p. 256 to 756.  
*aegyptium* L. Change p. 918 to 978.
- p. 1287 *aethiops* Nees. Change p. 101 to 102.  
*affabilis* Cress., *Nomada*. Add [s].  
*agnathus* Cush. Change to *agnatus*.  
*ainos* (Shen.). Change to *aionos*.
- p. 1288 *albihirta* (Ashm.), *Proaspicara*. Change to *Prosaspicara*.  
*albitarsis* Cress., *Helconidea*. Change to *Helcon*.
- p. 1289 *alium* (Sandh.). Change to *aliud*.  
*alticola* (Ashm.), *Banchus*. Place before *alticola* (Ashm.), *Isdromas*.
- p. 1292 *angustior* (Ckll.), *Lasioglossum*. Change to *angustus*.  
add *anograe* Ckll., *Perdita* . . . . . p. 1095.
- p. 1293 *aphidivora* Ashm. Change to *aphidivora* Ashm.  
*apiarium* Weld. Change to *apiaria*.
- p. 1294 *arcticus* (Roman). Change to *arctica*.  
*argentifrons* Cress., *Bembex*. Change p. 988 to 998.  
*arizonensis* Ckll., *Ceratina*. Add [s].
- p. 1295 *arizonica* Ckll., *Sphaerophthalma*. Add [v].  
*arizonicus* (Perk.), *Hesperodryinus*. Add p. 1034.  
*ashmeadii* Bass., *Andricus*. Change to *ashmeadii*.
- p. 1297 *aureicorpus* (Grlt.). Change *Eupelmus* to *Arachnophaga*.
- p. 1298 *australiensis* Gir., *Tetranemella*. Change to *Tetracnemella*.  
*baccharapidis* Ashm. Change to *baccharaphidis*.  
*bakeri* Cwfd., *Conanthalictus*. Change p. 1299 to 1129.
- p. 1299 *balabetei* Roh. Add [v].  
*ballabetei* Brad. Add [v].  
add *bataoides* Pack., *Cynips* q. . . . . p. 648.  
*beaulieu* Vier. Change to *beaulieui*.
- p. 1300 *bellone* Lep. Change to *bellone*.
- p. 1301 *biglumnis* Hal. Change to *biglumis*.  
*bilineatus* MacG., *Tenthredo*. Delete p. 75.  
*bimaculata* (Lep.), *Melissodes*. Add [s].



- p. 1302 *biplagistus* Cress. Change to *biplagiatus*.  
*bisexualis* Kinsey. Add [f].
- p. 1303 *brassicæ* Pack. Change to *brassicæ* Pack.  
*brevicornis* Prov. Add p. 233.
- p. 1304 *brunnea* (Cress.). Change (Cress.) to Cress.
- p. 1306 *california* Vier., Melitta. Change to *californica*.  
*californicus* Ashm., Andricus. Change p. 631 to 632.  
add *californicus* Bass., Cynips q. . . . . p. 632.
- p. 1307 add *cameronii* D. T., Chelonus . . . . . p. 145  
*canadensis* Sm., Harpagoxenus. Change p. 722 to 822.  
*candidus* (Cress.). Change to *candida*.
- p. 1308 *carinata* Stev., Hesperapis. Add [s].  
*carolina* Ashm., Isochyrocnemis. Change to *Ischyrocnemis*.  
add *carrugis* Maidl & Klima, Gorytes . . . . . p. 992.
- p. 1309 *castaneæ* (Roh.), Caliroa. Change p. 22 to 29.  
*castaneus* (Latr.), Camponotus. Add [s].  
add *catesbii* D. T., Decatoma . . . . . p. 580.
- p. 1311 *citerior* (Vach.). Change to *citerius*.
- p. 1311 add *citriiformi* Ashm., Callimome . . . . . p. 524.  
*citrinus* (Cwfd.), Aspidiotiphagus [s]. Add p. 438.
- p. 1312 *clavatus* Cress. Delete p. 232.  
add *coarctata* Latr., Formica . . . . . p. 786.  
add *coccidis* Grt., Eupelmus . . . . . p. 510.
- p. 1313 *coccophagus* Foerst. Change p. 699 to 669.  
*cochise* Pate. Change p. 1013 to 1031.  
*cockerelli* Cwfd., Perdita. Change to *cockerelli*.
- p. 1314 *coloradensis* Whrl., Lasius [s]. Change to Whlr.  
*communis* Cress., Melissodes. Add [s].
- p. 1315 *comptanæ* Vier. Change p. 613 to 136.
- p. 1318 add *cressoni* (Aaron), Diplorrhous . . . . . p. 719.
- p. 1319 *curta* Prov., Anthophora. Add [s].  
add *curtus* (Nort.), Gravenhorstia . . . . . p. 397.
- p. 1320 *cyanescens* Prov. Change to *cyanescens*.  
*daeckei* Roh., Thyreopus. Change p. 1021 to p. 1020.
- p. 1321 *defensor* Davis. Change *Tromatobia* to *Pimpla*.  
*delta* Vier., Change p. 1046 to 1064.
- p. 1322 *deprini* Kinsey. Add [f].  
*desertorum* Whlr., Odontomachus [s]. Change p. 781 to 787.  
add *desmodioides* Walsh, Nematus . . . . . p. 55.  
*despectus* (Kief.), Cinetus. Change p. 1085 to 682.  
*desponsa* Sm., Andrena. Change p. 1224 to 1085.  
*desponsiformis* Ckll., Melissodes. Change p. 47 to 1224.  
*detrictus* (MacG.), Nematus. Change p. 811 to 47.  
*destructor* (Jerd.), Monomorium. Change p. 651 to 811.
- p. 1322 *destructor* (Kinsey), Callirhytis [v]. Change p. 547 to 651.  
*destructor* (Say), Merisus. Change p. 835 to 547.  
*detecta* Sm., Formica. Change p. 111 to 835.  
*dichlocera* (Harr.). Change to *dichlocerus*.
- p. 1323 *dionnei* (Prov.). Change to *dionnei*.  
*dispar* (Strickl.). Change p. 270 to 240.  
*diversipilosa* Whlr. Change p. 821 to 801.  
*diversipilosus* Sm. Change p. 801 to 821.
- p. 1324 *dolichoptera* Nowicki, Krygeriola. Change p. 421 to 422.  
add *duricoria* Mayr, Holcaspis . . . . . p. 639.

- p. 1325 *dysphagae* Ashm. Change to *dysphagae* Grt.  
*eleganta* Gir. Place after *elegans* Wold.
- p. 1326 *elongata* (Davis), Barylypa. Change p. 963 to 396.  
*elongatus* Ashm., Ormyrus. Change to *elongatus*.  
*ensifera* Kief., Proaspicera. Change to *Prosaspicera*.  
*epicus* (Cress.). Change p. 156 to 158.
- p. 1327 *erichsoni* (Htg.). Change to *erichsonii*.  
*erigeniae* Robt. Add p. 1065.  
*erythrogastrum* Roh., Aphilodactylum. Change to *erythrogastrum*.  
*essigi* Sm., Camponotus. Change p. 884 to 844.  
*euchroa* Ckll. Add [v].
- p. 1328 *falsicornis* Gomes. Change *Compperia* to *Comperia*.
- p. 1329 *fartus* (Vach.), Lasioglossum. Change to *fartum*.  
*fasciata* Sm., Morphota. Change p. 940 to 941.  
add *fasciipennis* Kief., Ibalia . . . . p. 595.  
*fascipennis* Cress., Exetastes. Delete p. 316.
- p. 1330 *filicornis* Kief., Tetraspilus. Change to *Tetraspilus*.  
*filirrhina* Brown. Change to *filirrhina*.
- p. 1331 *finni* Roh. Add [s].  
add *flavicornis* Harris, Odynerus . . . . p. 993.  
*flavipes* Ashm., Megastigmus. Change p. 532 to 527.  
add *flavipes* Ashm., Megastigmus . . . . p. 532.  
second column. Align last digits of page numbers.
- p. 1332 *flavopicta* Criech. Change author to Kriech.  
*flavosignata* Cress. Change p. 770 to 776.
- p. 1333 *floridanus* (Buckl.), Camponotus [s]. Change p. 884 to 844.  
add *formosa* Bass., Cynips q. . . . p. 634.  
*forticornis* Walsh, Biorhiza. Change to *forticornis*.
- p. 1334 *frugalis* Cress. Add [s].
- p. 1335 *fulgidus* Hal. Change p. 151 to 153.  
*fulvus* (Nort.), Monoctenus. Change p. 81 to 18.
- p. 1336 *galvestonensis* (Vier.). Change p. 322 to 382.  
*gaspesianus* Prov., Phaeogenes. Change p. 337 to 277.  
*gaspesianus* (Prov.), Syndipnus. Change p. 277 to 337.
- p. 1338 *gonager* Lep. & Br. Change to *gonager*.
- p. 1340 *helianthi* Brodie, Torymus. Add p. 521.
- p. 1341 *hesperina* Ckll., Nomada. Add [s].  
*heterorhimum* (Ckll.). Change to *heterorhinum*.
- p. 1342 *hirticeps* Sm. Change p. 1053 to 1068.  
*hopkinsi* Ashm., Paururus. Change to *hopkinsi* Ashm.  
*hopkinsii* (Vier.), Cosmophorinus. Change (Vier.) to (Ashm.)  
*hortorum* Brues. Change to *hortorum*.
- p. 1342 delete *howardi* (Ashm.), Polynema.
- p. 1343 *hubbardi* How., Goniozus. Place after *hubbardi* Cwfd. on p. 1342.  
*hyacinthus* MacG. Change to *hyacinthus*.  
*hyalina* (Blake), Photopsis, and *hyalina* Brues, *Pristocera*. Place  
before *hyalina* Cress.
- p. 1344 delete *ignotus* Bass., Andricus.  
add *ilicifoliae* Bass., Cynips q. . . . p. 631.  
*imitatrix* Wesm. Change author to Wasm.  
*imitatus* (Cress.), Agathus. Change to *Agathis*.  
*inaron*. Add Wlkr.
- p. 1345 *indicatus* (Kinsey), Besbicus. Change to *indictus*.  
*indotata* (Davis). Change p. 327 to 328.  
*inimicus* Gah., Cirrospilus. Change p. 498 to 458.

- p. 1346 add *insolens* Brues, *Pezomachus* . . . . p. 240.
- p. 1348 *junci* Ashm. Change p. 166 to 167.
- p. 1349 *laetatorius* (F.). Place before *laetum* Wlkr. *laetus* (Bt.). Change to *laetus* (Br.).
- p. 1350 *landerensis* Viereck. Change *Tromatobia* to *Pimpla*. *largo* Vier. Change p. 371 to 376.
- p. 1352 add *levis* D. T., *Perilampus* . . . . p. 594. *limitus* Cush. Change to *limitis*.
- p. 1353 *longipes* Perk., *Pheidole* [s]. Change author to Perg.
- p. 1354 *luteicollis* Lep. & Br. Change to *luteicollis*.
- p. 1355 *macer* Tow. & Tow. Change p. 255 to 225. *macswaini* Timb., *Dianthidium*. Change to *macswaini*.
- p. 1356 *maevius* Gir. Change to *maevius* Grt.
- p. 1356 *magdalenae* Strandt. Change to *magdalenae* and change p. 1007 to 1002. *maidaphidis* Ashm. Change to *maidaphidis*. *maidaphidis* Garman. Change to *maidaphidis*. add *mamma* Walsh, *Cynips* q. . . . . p. 639. add *mammula* Bass., *Cynips* q. . . . . p. 643.
- p. 1357 add *marcidus* Brad., *Brachycistellus* . . . . p. 745. *marginatorius* F. Add p. 229. add *mariae* Riley, *Chalcis* . . . . p. 591. add *marilandi* Grt., *Neomyrmar* [s] . . . . p. 418. add *marilandica* Grt., *Carlyleia* . . . . p. 465. *marilandica* Gir., *Lamprotatus*. Change to *marilandica* Grt., *Miscogaster*. insert entries "marlatti Roh., Nysson" to "marylandicus (Gir.), Encyrtus [s]" p. 1358, after *marlatti* Roh., *Hoplocampa*.
- p. 1358 *marylandia* Gir., *Omphalopsis*. Change to *marylandia* Grt.
- p. 1359 *melanderi* Ckll., *Nomia*. Add [s]. *melanochroa* Ckll. Add [s]. *melanomerus* Vier., *Campoplex*. Change to *melanomerus*. add *mellea* Grt., *Stenomesioidea* . . . . p. 460.
- p. 1360 *melligera* Llave. Add p. 856. *mensae* Ckll. Change p. 1215 to 1216. *mentalis* (Davis). Change *Polyoncus* to *Lathrolestes*. *metacomet* Vier. Change p. 246 to 247.
- p. 1361 *metallica* Gah. Place authors name in parentheses. *mexicanus* Wesm., *Myrmecocystus*. Add p. 856. *miamensis* Roh. Add [s].
- p. 1361 *micans* How. Change to *micans*. *microcosmus* Gir. Change to *microcosmus* Grt.
- p. 1362 *minuta* Cush., *Hythobia*. Change to *Nythobia*. *minuta* Say, *Myrmica*. Change to *minuta*. *minutissima* Mayr, *Crematogaster*. Add [s]. *minutus* Mayr, *Cyphomyrmex*. Add p. 829. *mirabilis* Vier. Change to *mirabilis*.
- p. 1363 *modestus* Amer. auct. Add *Coccophagus*.
- p. 1364 *munitis* Cress. Change to *munitus*.
- p. 1365 *murdtfeldtiae* Marl. Change to *murtfeldtiae*. *nebulosa* Mick., *Timulla*. Add [s].
- p. 1366 *neglectus* (Morl.). Change to *neglectum*. *nemorosus* MacG., *Dolerus*. Change to *nemorosus*. *neutalis* (Cress.). Change p. 300 to 299. *nicaraguanum* Kohl. Change to *nicaraguanum*.



- p. 1367 *niger* Fullaw., Ceroptres. Delete p. 653.  
add *nigrae* O. S., Cynips q. . . . . p. 650.  
add *nigriclavus* Grlt., Scelioencyrtus . . . . . p. 502.
- p. 1368 *nigripennis* Fox, Notogonia. Change p. 945 to 954.
- p. 1369 *nigriventris* (Curr.), Nematus. Change to *nigriventris* Curr., Pteronidea.
- p. 1370 *nitschei* D. T. Change to *nitschei*.  
add *nodus* Walsh, Euura . . . . . p. 50.  
*nomadoides* Spin. Change to *nomadoides*.  
*nonstylatus* Grlt., Trigonoderus. Change p. 545 to 546.
- p. 1370 *nortoni* Cress., Nomia. Add p. 1128.  
add *notha* O. S., Cynips q. . . . . p. 646.  
*nova* (Nort.). Change Selandria to Adelesta.  
add *nubila* Bass., Cynips q. . . . . p. 641.  
add *nubila* Mayr, Dryophanta . . . . . p. 641.
- p. 1371 add *obscuripostica* Vier., Andrena . . . . . p. 1074.  
add *obscurissimus* Perkins, Neogonatopus . . . . . p. 1038.  
add *obscuriventris* Mayr [s] . . . . . p. 870.  
*obtusa* Klug, Tenthredo. Change p. 28 to 82.
- p. 1372 add *obtusilobae* Karsch, Cynips q. . . . . p. 614.  
*occidentalis* Cress., Ephialtes. Change p. 182 to 189.  
*occidentalis* (Emery), Aphaenogaster [s]. Change p. 794 to 797.
- p. 1373 *odontandroplox* End. Change Rhynachophion to Rhynchophion.
- p. 1374 *orgyiae* (Fitch), Eulophus. Change p. 403 to 430.  
*ornatus* Grav. Change p. 269 to 287.  
*ornatus* Prov., Cryptus. Change p. 267 to 269.  
*orpifex* Sm. Add [s].  
add *osten sackenii* Bass., Cynips q. . . . . p. 635.
- p. 1375 add *ovulum* Walsh, Euura . . . . . p. 50.  
add *ovum* Walsh, Euura . . . . . p. 50.  
*pacifica* Prov. Change Snyairema to Synairema.  
*pacificus* McC. & Egb., Synergus. Change p. 616 to 612.  
*palachei* (Ashm.). Change Anoplolyda to Pamphilus.  
*pallide-fulva*. Change L. to Latr. and p. 558 to 858, 859.
- p. 1376 *pallidimacula* D. T. Change to *pallidimacula*.  
*pallipennis* Prov., Hemiteles. Change to *pallipennis*.  
*pallipes* Nees. Add p. 112.  
*paludicola* D. T., Halictus. Change p. 1151 to 1115.
- p. 1376 add *palustris* Mayr, Cynips q. . . . . p. 646.  
add *palustris* O. S., Cynips q. . . . . p. 646.
- p. 1377 *parenosas* Pate, Diodontus. Add [s].  
*parradesi* Sauss. Change to *parredesi*.  
*partiaeniceps* Gir. Change to *partiaeniceps* Grlt.  
*parvus* Robt., Calliopsis. Change to *parvus* and add p. 1100.
- p. 1378 *pectorale* Ashm. Change Astiphtomma to Astiphtomma.  
*pectoratorius* (Thunb.). Change p. 389 to 349.  
add *pegasus* Harris, Crabro . . . . . p. 1016.
- p. 1379 *perilampoides* Gir. Change to *perilampoides* Grlt.
- p. 1380 add *petiolicola* Bass., Cynips q. . . . . p. 635.
- p. 1381 *picea* (Riley), Arachnophaga. Add p. 512.  
*pictus* Davis. Change Mesoleptua to Mesoleptus.  
*pieridis* Prov. Change to *pieridis*.  
*pikei* Roh. Change to *pikei*.  
*pilicornis* (Holmgr.). Change Sphacophilus to Sofus.

- p. 1382 *pinguidorsum* Dyar. Change to *pinguidorsum*.  
*pini* Tay., Eupelmus. Change p. 510 to 511.  
 add *pisum* Walsh, Nematus . . . . . p. 51.  
*placida* Sm., Andrena. Add [s].  
*plenus* Robt., Gnathias [f]. Change p. 1169 to 1196.  
*plesius* Fen., Epigonatopus. Change to *plesuis*.
- p. 1383 add *podagrae* Walsh, Cynips q. . . . . p. 652.  
*politus* Say, Philanthus [s]. Change p. 1001 to 1002.  
*transf. polygraphi* (Ashm.), Cecidostiba and *polygraphi* (Ashm.),  
*Eurytoma* to follow *polygoni* Vier. & Ckll., and delete duplicate  
*entry polygraphi* (Ash.), *Eurytoma*.
- p. 1383 add *pomiformis* Bass., Cynips q. . . . . p. 651.  
 add *pomum* Walsh, Nematus . . . . . p. 49.
- p. 1384 *popa* Grlt., Eupelmus. Change p. 510 to 511.  
*poppigii* (Brisch. & Zadd.). Change to *pöppigii*.  
*populi* (Marl.), Nematus. Add p. 48.  
*primus* Cwfd. Change *Eriodontomerus* to *Eridontomerus*.
- p. 1385 *pruni* Robt. Change p. 1077 to 1078.  
*prunicola* Ckll. Change p. 1077 to 1078.  
*prunifloris* Ckll. Change p. 1077 to 1078.  
 add *prunus* Mayr, Amphibolips . . . . . p. 631.  
 add *prunus* Walsh & Riley, Cynips q. . . . . p. 631.
- p. 1386 *pteronidea* (Roh.). Change to *pteronideae*.  
*pudicum* (Sandh.), Lasioglossum. Change p. 1116 to 1117.  
*pumilis* (Cress.), Eriplanus. Change to *pumilus*.
- p. 1387 add *punctata* Bass., Cynips q. . . . . p. 652.  
*punctifacies* Gir. Change to *punctatifacies* Grlt.
- p. 1388 *quadricarinatus* Grlt., Ooctonus. Change p. 410 to 411.  
*quercus* Gir., Eupelmus. Change author to Ashm. and p. 510 to 511.  
*quercus* Knw. Change to *quercus*.
- p. 1389 *refractaria* MacG. Change to *refractaria*.
- p. 1390 *rileyanus* Vier. Change p. 124 to 134.  
 add *rileyi* Bass., Cynips q. . . . . p. 623.  
 add *rileyi* Mayr, Neuroterus . . . . . p. 623.
- p. 1391 *robertsonii* D. T., Colletes. Add [s].  
*robusta* Brisch. Change *Dimorpha* to *Dimophora*.  
*rohweri* Schwarz, Anthidium. Change p. 142 to 1142.
- p. 1392 *rubricus* Prov. Change *Allanthus* to *Allantus*.  
*ruficornis* Davis, Hadrodactylus. Change p. 933 to 339.
- p. 1392 *ruficornis* F., Larra. Change p. 339 to 993.
- p. 1393 *ruficoxalis* Vier., Campoplex. Change p. 375 to 378.  
 add *ruficoxus* Prov., Mesostenus . . . . . p. 253.
- p. 1394 *rugosolum* Fouts. Change to *rugosulum*; correct p. 732.
- p. 1395 *rustica* Cress., Osmia. Change p. 1165 to 1163.  
*salicicola* Ashm., Limneris. Change to *Limneria*.  
*sambornii* (Blake), Pseudomethoca. Change to *sanbornii*.
- p. 1396 *sanguineum* (Prov.), Cternopelma. Change to *Ctenopelma*.  
*scaevoilella* (Ckll. & Casad). Change to *scaevoilella*.  
*schoberi* (D. T.). Change p. 255 to 256.
- p. 1397 add *scitula* Bass., Cynips q. . . . . p. 652.  
*scorppides* Mues. & Walkl. Change to *scorpoidea*.
- p. 1399 *septientronalis* (Schlett.). Change to *septentrionalis*, and place  
 before *septentrionalis* (Brues) on p. 1398.

- p. 1400 *similis* (Ashm.), *Proaspicera*. Change to *Prosaspicera*.  
 add *similis* Bass., *Cynips* q. . . . . p. 652.  
*similis* (Nort.), *Dolerus*. Add [s].  
*simulans* Cress., *Colletes*. Add [s].  
 add *singularis* Bass., *Cynips* q. . . . . p. 636.  
*sitkaënsis* Perg. Change p. 850 to 851.
- p. 1401 *smerinthi* Riley. Change to *smerinthi*.  
*solitaris* (Dyar). Change to *solitaris*.
- p. 1402 *spiloptera* Ckll. Change to *spiloptera*.  
 add *spinosa* Ashm., *Rhodites* . . . . . p. 618.  
*spongifica* (O. S.). Add p. 631.
- p. 1404 *subfulvus* (Cress.). Place before *subfusca* (Kief.).  
*sunconnexus* Ellis. Change to *subconnexus*.
- p. 1405 *subtilis* Sm., *Andrena*. Add [s].  
 add *succinctus* Cress., *Crabro* . . . . . p. 1016.
- p. 1406 add *suttoni* Bass., *Cynips* q. . . . . p. 652.  
 add *suttoni* Mayr, *Andricus* . . . . . p. 652.  
*sylvarum* Curt. Change p. 408 to 407.  
*tarsalis* (Ashm.), *Trigonura*. Change to *tarsalis* Ashm., *Chalcis*.  
*tarsata* (D. T.), *Trigoneura*. Change to *Trigonura*.  
*tegularis* (Cress.), *Brachymeria*. Change p. 587 to 588.
- p. 1407 *teritius* Gir. Change to *tertius* Grlt.  
*testaceicornis* (Cam.), *Dicaelotus*. Change p. 290 to 280.  
*testudinea* (Klug). Change *Tenthredo* to *Hoplocampa*.
- p. 1408 *texana* Cress., *Mutilla*. Add [v].  
*texanus* How., *Blepyrus*. Change to *texanus*.
- p. 1409 *thomsoni* Fyles. Change to *thomsoni*.  
*ticheriae* Vier. Change to *tischeriae*.
- p. 1410 *tortricola* Ashm. Change to *tortricola*.
- p. 1411 *trisculcatus* Prov. Change to *trisulcatus*.
- p. 1412 *undata* Klug. Change p. 744 to 774.  
*unguttus* Grlt., *Trigonoderus*. Change p. 545 to 546.
- p. 1413 add *utricula* Bass., *Cynips* q. . . . . p. 636.
- p. 1414 *variicornis* How. Change author to D. T.
- p. 1415 add *ventricosus* Bass., *Cynips* q. . . . . p. 653.  
*verbesinae* Ckll., *Perdita*. Add [s].  
*versatilis* (Bridw.). Add [s].  
*vestita* Prov. Add p. 1053.
- p. 1416 *vidua* Walsh. Change *Tromatobia* to *Pimpla*.  
*vincta* Say, *Nomada* [s]. Add p. 1201.
- p. 1417 *viridaeneus* (Prov.). Change *Euplectrus* to *Elachertus*.  
*vitis* (Harr.), *Erythraspides*. Change p. 69 to 68.  
*vulpinus* Szép. Change p. 304 to 305.
- p. 1418 *westwoodii* Shipp. Change to *westwoodii*.  
*wheeleri* Graen., *Andrena*. Add [s].  
 add *wheeleri* Grlt., *Pheidoloxenus* . . . . . p. 506.  
*wickhami* (Ashm.). Change *Torymus* to *Erimerus*.  
 add *xanthochrous* Handl., *Stizus* . . . . . p. 994.
- p. 1419 *zabriskiei* How. Change to *zabriskiei*.  
*zonata* Cress., *Polistiphaga*. Change author to Cush.



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To denote transfer of a form from one subgenus to another in the same genus one entry is given with two page numbers where necessary. The same procedure is used to denote transfer of a form from a genus or subgenus to "Unrecognized Forms", "Uncertain Disposition", "Nomina Dubia" or "Nomina Nuda".

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Aridelus Marsh.	19	atricornis Pack., Gorytes	194
aridula Ckll., Ashmeadiella[s]	235	atrimitra (LaBerge), Svastra[s]	254
aridus Stephen, Colletes	205	atropennis Tow., Priocnemioide[s]	171
aristoteliae Vier., Apanteles	27	atropes Cress., <i>Melissodes</i>	250
arizonense (Cwfd.), LasioGLOSSUM	230	atropes (Cress.), Svastra[s]	254
arizonense Whlr., Eciton	109	atropes (Mocs.), Hemisia[s]	257
arizonensis Cwfd., Urosigalphus	22	atropes (Prov.), Doryctes	36
arizonensis Cress., Xylcopa[s]	259	atropes (Roh.), Odontocolon	39
arizonensis Dreis., Xylothrips[s]	179	atrox Cress., Ichneumon	51
arizonensis Mich., Anthocopa	240	atrox (Dahlb.), Anoplius	181
arizonensis Mich., Ashmeadiella	236	atta F.	138
arizonensis Snelling, Polistes[s]	162	attenuatum Bks., Cryptocheilus	172
arizonensis Stephen, Colletes	205	attomyrma Emery	117
arizonica (Bks.), Ageniella[s]	176	attonita Mich., Proteriad[s]	239
arizonica Bks., Pepsis	170	Augochlora Sm.	232
arizonica Ckll., Xenoglossodes	255	Augochlorella Sandh.	232
arizonica Sants., Pheidole[s]	124	Augochloropsis Ckll.	232
arizonica Timb., Perdita	218	augustae Whlr., Cerapachys	110
arizonica Whlr., Prenolepis[s]	147	Aulacomastus Mues. & Walkl.	88
arizonicus Mason, Eudiaborus[s]	42	Aulacostethus Philippi	83
arizonicus Tow., Notocyphus[s]	177	Aulacus Jur.	88
armata Sm., Megachile	245	Aulacostethus Ashm.	179
armatus Ashm., Urosigalphus	22	Auplopus Spin.	174
armatus Patt., Colletes[s]	209	aurantia (Fox), Larropsis	188
armatus (Prov.), Prismmaecius	193	auranum (Cam.), Rygchium[s]	163
armifera (Say), Pristocera	97	auraria (Blake), Photopsis	102
armillatus Wkl., Cubocephalus	45	aurata Park., Microbembex	196
arnaudi Dreis., Anopompilinus	184	aurata (Sm.), Augochlorella	232
Arochila Mich.	237	auratus (Ashm.), Lamprotatus	74
Arotes Grav.	39	aurea Whlr., Solenopsis[s]	129
Arrenoclavus Doult	70	aureola (Cress.), Dasymutilla	103
artaceae (How.), Epiencyrtus	70	aureovittata Ckll., Perdita[s]	218
artemis (Vier.), Ichneumon	51	aurescens Ckll., Melissodes	252
artemisaphis Sm., Praon	18	aureus Isely, Eumenes	163
artemis Cole, Pheidole[s]	122	auricapitis Schus., Ephuta	104
artifex Sm., Xylcopa	259	auriculatus Martin, Aliolus	23
arvense (Sauss.), Rygchium[s]	163	aurifer Sauss., Polistes[s]	162
arvensiformis Ckll., Sphecodes	231	aurifera Schus., Ptenomorphus	101, 102
arvensis Patton, Sphecodes	231	aurifluus (Hal.), Cteniscus	41
Asaphes Wlkr.	74	aurifuscus (Titus), Dioxys	234
aschenborniana Ckll., Melissodes[s]	252	auripes Fern., Chlorion	191
asclepiadis Ckll., Andrena	217	auripes Prov., Bracon	34
Ascogaster Wesm.	31	aurivillii Roman, Ichneumon	52
aserva Forel, Formica[s]	160	europunctata (Roger), Wasmannia	135
ashmeadi Cush., Atractodes	45	australis (Ckll.), Ashmeadiella	237
ashmeadi Emery, Aphaenogaster	117	australis Mitch., Sphecodes	231
ashmeadi (Kief.), Aclista	91	austrianus (Bks.), Priocnemioide[s]	171
ashmeadi Kief., Gonatopus	100	autographae Mues., Apanteles	27
ashmeadi Mayr	125	autographae Mues., Meteorus	19
ashmeadi Mues. & Walkl., Aclista	91	autumnalis (Bks.), Anoplius[s]	181
Ashmeadiella Ckll.	235	autumnalis Mitch., Sphecodes	231
ashmeadii D. T., Cenocoelius	21	aviigrata (Dyar), Megaxyela	8
asignus Dreis., Evagetus	180	axillaris Mitchell, Acrocinus[s]	47
asperatus Fox, Gorytes	194	azteca Cam., Pepsis	170
Aspidiotiphagus How.	65	aztecum Forel, Eciton	109
aspidisciae Ashm., Mirax.	27	aztecus (Sauss.), Chlorion	191
Astata Latr.	186	azurea Lep. & Serv., Mesocheira	259
Astatus Jur.	18	azureus (Cress.), Allochares	186
asteris Ckll., Perdita	218		
Astiphromma Foerst.	62	haboquivari Evans, Aporinellus[s]	186
astragali Ckll., Ashmeadiella[s]	235	haboquivari Schus., Ephuta	104
atalantae (Pack.), Apanteles	27	backi Sandh., Trypoxylon	189
Atanycolimorpha Vier.	33	badia (Bass.), Holocynips	88
Atanycolus Foerst.	33	badius (Latr.), Pogonomyrmex	114
ater Prov., Phygadeuon	49	Baeus Hal.	92
ater (Wlkr.), Cryptopyrma	75	bahai (Forel), Pheidole	120
aterrima (Sm.), Hemisia	257	bahai Forel, <i>Tetramorium</i>	138
aterrimus Whlr., Dolichoderus[v]	139	baileyae Ckll., Perdita	226
atlantica Linsl., Melecta[s]	258	baileyi Ckll., Melissodes	250
atlanticus Vier., Plenoculus[s]	187	bakeri Cook & Davis, Meteorus	19
atlantis Mitch., Sphecodes	231	bakeri (How.), Copidosoma[s]	70
Atoposmia Ckll.	240	bakeri (Mues.), Agathis	26
atra Buckl., Formica	145, 161	bakeri Mues., Microgaster	29
atra Klug, Pristocera	97	bakeri (Whlr.), Aphaenogaster[s]	117
Atractodes Grav.	45	baldufi Walkl., Luchatema	61



balteatus Dahlb., Bombus	261	bicoloripes Ashm., Zootrepes	57
BANCHINAE	53	Biconomyrma Kusnezov	140
BANCHINI	53	bicornis Martin, Aliolus	23
Banchus F.	54	bicornis (Robt.), Stenodynerus[s]	167
bancrofti (Dng.), Psaenythia	217	bicornuta Guér., CERCERIS[s]	197
banksi Beq., Aporinellus	186	bicristatus Grlt., Cheiloneuroides	71
banksi Dreis., Anoplius	183	Bicyrtes Lep.	195
banksi (Swh.), Ectemnius[s]	199	bidens (Sauss.), Rygchium	163
banksi Swenk, Colletes	205	bidenticauda Timb., Perdita	219
banksianae Roh., Neodiprion[s]	9, 10	bidenticauda Timb. & Mich., Proteriades	239
barbata Timb., Nomadopsis	229	bifasciata (Say), Macrophya	15
barbata Whlr., Pheidole	120	bifasciatipennis (Grlt.)[s]	63
barbatus (Sm.), Pogonomyrmex[s]	114	bifasciatus Ashm., Aphidius	18
barbatus Tow. & Tow., Grypocentrus	40	bifasciatus Ashm., Aulocostethus	179
barberi Cwf., Urosigalphus	22	bifasciatus Grlt., Metacolus	76
barberi Evans, Dissomphalus	98	bifoveolata Ashm., Ceratopria	90
barberi Krom., Nitelopterus[s]	187	bifoveolata (Ashm.), Trichopria	90
Barichneumon Thos.	49	bifoveolatus Br., Ophion	62
barnesi Sm., Pogonomyrmex[s]	115	bifurcus (Robt.), Stenodynerus[s]	168
barnstoni Morl., Coelichneumon	52	bigeloviae (Ckll.), Ashmeadiella	235
Baryconus Foerst.	93	biguttatus (F.), Episyrion[s]	181
Baryconus Foerst. of Cat.	93	bilineata Timb., Perdita[s]	224
basalis Bks., Aporinellus	185	bilineatus Ashm., Syrphoctonus	57
basalis Dreis., Anoplius	183	bilineatus Thoms., Anteris	93
basalis Woll., Telenomus	92	bilobata Timb., Perdita	219
Basalys Westw.	90	bimaculata (Lep.), Melissodes[s]	250
basilicus Davis, Epachtes(!)	41	bimaculata Whlr., Cardiocondyla[s]	125
basingeri Timb. & Mich., Proteriades	239	bimaculatus Prov., Odynerus	169
basirufous (!) Dreis., Pompilinus	182	bimarginata (Wess. & Wess.),	
basirufus Dreis., Pompilinus	182	Smithistruma	136
Bassetia Ashm.	87	bimembris Prov., Ichneumon	51
Bathyplectes Foerst.	60	bimembris Prov., Ichneumon[s]	51
battlei Brad., Ephuta[s]	105	binominata Mues., Agathis	26
beameri Mich., Anthocopa	241	binotata Timb., Perdita	219
beameri Mich., Dasymutilla	104	bioculata (Cress.), Dasymutilla	103
beamerorum Stephen, Colletes	205	bioculatus (Cress.), Aoplus[s]	49
beata Ckll., Perdita	219	bioculatus (Cress.), Stenichneumon[s]	50
bebbiae Timb., Perdita	219	Biolybia Schmied.	60
Bebelus Gistel	93	bipartitor Fox, Pemphredon	189
bechteli Bohart, Leptochilus	165	bipartitus Handl., Gorytes	194
bedardi Prov., Erromenus	41	bipunctata Cress., Andrena	215
bedeguaris L. Ichneumon	73	bipunctata (Say), Ochleroptera	193
bedelliae Vier., Apanteles	27	bipunctatum Oliv., Oxybelus	200
belangeri Cress., Amblyteles	50	bipunctatus Cress., Ichneumon	51
belangeri (Cress.), Limerodops[s]	50	biramosa Schus., Odontophotopsis	102
belangerii (Prov.), Syrphoctonus	57	birkmanni (Bks.), Agenioideus	180
belfragei (Ashm.), Ethelurgus	44	birkmanni Ckll., Emphoropsis	257
belfragei Cress., Andrena	215	birkmanni Roh., Pisonosia	186
belfragei Cress., Bembi	196	birkmanni Swenk Colletes	205
belfragei Cress., Eumenes[s]	163	birkmannii (Fr.), Hemisia	257
belfragei Cress., Tachysphex	188	bisalicis Vier., Andrena	212
bellula Timb., Perdita	219	biscopula Mich., Ashmeadiella	237
bellulus (Cress.), Leptochilus	165	biscutellae (Ckll.), Hoplitis	233
Belyta Jur.	91	bishoppi Ckll., Melissodes	250
BELYTINAE	91	bishoppi Ckll., Perdita[s]	219
Bembecinus Costa	195	bishoppi (Ckll.), Xenoglossodes	255
Bembex (!), F.	196	bispinata Timb., Perdita	219
Bembix Latr.	196	bituberculata (Cress.), Diadasia	248
Bembys (!) F.	196	bizonarius (Grav.), Diplazon	57
beneficium Gah., Eumicrosoma	92	BLACINAE	22
bequaerti Mich., Anthocopa[s]	241	BLACINI	22
bequaerti Vier., Perdita[s]	219	blaisdelli Ckll., Andrena	212
bequaertiana Ckll., Perdita	219	blaisdelli Timb., Perdita	220
berberidis Sm., Aphidius	18	blakei (Fox), Photopsis	102
Berecyniticus Ghesq.	70	blanda LaBerge, Melissodes	250
bergi Riegel, Chorebidella	31	blandula Timb., Andrena	213
bernardina Linsl., Andrena[s]	214	blandus (Sauss.), Stenodynerus[s]	166
BETHYLIDAE	97	Blastophagus Grav.	73
BETHYLOIDEA	94	blatchleyi Timb., Perdita	220
Bethylus Latr.	98	blatchleyi Whlr., Dolichoderus[v]	139
betulae Mues., Oncophanes	35	blattae Burks, Symtomosphyrum	67
beutenmülleri Fox, Bembi[s]	196	blattidarum Ferrière, Anastatus	72
beutenmülleri Whlr., Dolichoderus[v]	139	Blepharipus Lep. & Br.	198
bexar (Blake), Dasymutilla[s]	103	blepharus Bohart, Stenodynerus	166
bicarinata Mayr., Pheidole[s]	120	boharti Evans, Hesperopompilus	183
bicolor Ashm., Aphidius	18	boharti Timb. & Mich., Proteriades	239
bicolor (Cress.), Mesoleptus	55	boharti Wms., Solierella	187
bicolor (Cress.), Perilissus	55	bohartorum Timb., Perdita	220
bicolor (Cress.), Sigalphus	31	bollii Cress., Eumenes[s]	163
bicolor How., Archenomus	65	boltoniae (Robt.), Perdita[s]	220
bicolor Kief., Anteris	93	bombiformis (Cress.), Ptilothrix[s]	243
bicolor Lep., Centris	257	bombilans Holmb., Svastra	253
bicolor (Prov.), Agathis	26	BOMBINI	260
bicolor Timb., Psaenythia	217	Bombus Latr.	260
bicolor Whlr., Dorymyrmex[s]	140	borealis Cress., Glypta	53
bicoloripes (Ashm.), Scambus	36	borealis (Prov.), Leptopygus	61



borealis Thoms., Rogas	35	Burksia Full.	68
borealis Whlr., Aphaenogaster[s]	118	burrus (Cress.), Rogas	35
boreo-orientalis (Beq.), Rygchium[s]	164	burrus (Cress.), Tachypompilus[s]	181
boscii (Lep.), Rygchium[s]	163	bushnelli Mues., Apanteles	27
Bothriothorax Ratz.	70	buttricki (Vier.), Agathis	26
Bothynostethus Kohl	186	byrdiae Heinr., Ichneumon	51
boulderensis Sm., Aphaenogaster[s]	117	byrdiops Heinr., Ichneumon	51
brachycephala Timb., Perdita[s]	222	Bythandrena Lanham	212
brachycephalus Mitch., Sphecodes	231		
brachycerus Kief., Dryinus	99	caberatae Mues., Apanteles	27
Brachycystis Fox	101	cacoeiae Riley, Apanteles	27
Brachycyrtus Kriech.	43	Cacotropa Foerst.	46
BRACHYCYRTINI	39, 43	cactorum (Ckll.), Ashmeadiella[s]	235
Brachycyrtomorpha Blanch.	44	caementarium (Dru.), Sceliphron	192
Brachycyrtomorpha Krieb.	43	Caenocephus Knw.	18
Brachymelissodes LaBerge	253	Caenocrepis Thoms.	78
Brachymeria Westw.	83	caenosa Tow., Ceropales[s]	178
Brachymyrmex Mayr	141	caerulescens (Dahlb.), Auplopus[s]	174
brachyodonta (Ckll.), Hoplitis	238	caeruleum (Nort.), Hedychridium	94
Brachyponera Emery	111	caeruleus Cress., Ichneumon	52
brachyurus Ashm., Bracon	33	caesalpiniae (Ckll.), Hemisia	257
Bracon F.	33	caespitum (L.), Tetramorium	134
BRACONIDAE	18	calcarata (Cress.), Agathis	26
bradleyana Timb., Perdita	220	calcarata White, Osmia	243
bradleyi Bohart, Pterochilus	169	calcareae Bugbee, Eurytoma[s]	81
bradleyi Mitch., Colletes	205	calcaratorius (Thunb.), Coelichneumon	52
bradleyi Mues., Microplitis	30	calcitator (Grav.), Collyria	39
bradleyi Vier., Andrena	213	calderoni Forel, Leptothorax[v]	134
bradleyi Whlr., Formica	152	Calicurgus Lep.	174
bradleyi Whlr., Leptothorax	131	calidus (Prov.), Xorides	39
brasilianorum (L.), Xylcopa[s]	259	californiae Evans, Anoplius	182
brasilienis (Hempel), Prospaltella	65	californica (Ashm.), Ashmeadiella[s]	236
brassicae Mues., Microplitis	30	californica Brown, Smithistruma	136
brevibase (Ckll.), Lasioglossum	230	californica Cress., Anthophora[s]	256
breviceps Emery, Polyergus[s]	161	californica Cress., Cericus	197
breviceps Krom., Perisierola	98	californica Cress., Osmia	242
breviceps Mich., Ashmeadiella	237	californica (Cress.), Perdita	220
brevicinctor (Say), Melanichneumon	49	californica (Cress.), Xeromelecta	258
brevicinctus (Prov.), Amydraulax	44	californica Cress., Xylcopa[s]	259
brevicorne (Mayr), Stenamma	116	californica Emery, Crematogaster	125
brevicornis (Ashm.), Saphonecerus	85	californica (How.), Moranilla	75
brevicornis Ashm., Synergus	85	californica (Kief.), Hexacola	85
brevicornis Cress., Melissodes	250	californica Mayr, Pheidole[s]	120
brevicornis (Cress.), Svastra	253	californica (Mues.), Agathis	26
brevicornis Emery, Lasius[s]	148	californica Schus., Ephuta	104
brevicornis (Grav.), Scambus	37	californica Timb., Andrena[s]	213
brevicornis Mues., Syntretus	20	californica (Timb.), Hemisia	257
brevicornis Patt., Ceropales	177	californica Whlr., Formica[s]	160
brevicornis Prov., Cryptus	44	californica Whlr., Prenolepis[s]	147
brevicornis Ratz., Pteromalus	79	californica Wms., Pisonopsis[s]	187
brevithirtus Timb., Colletes	206	californicum Bohart & Schlinger, Oxybelus	200
brevinodis Emery, Myrmica[s]	113	californicum Cook, Proceratium	111
brevis (Cress.), Dipogon[s]	172	californicum (Cress.), Therion	62
brevis Morl., Ephialtes	37	californicum Grlt., Pachyneuron	74
brevis Say, Megachile[s]	244	californicum (Sauss.), Cahlybion	192
brevisetosa (Sm.), Smithistruma	136	californicus Ashm., Aphidius	18
brevispinosa Whlr., Myrmica[s]	113	californicus (Ashm.), Chalcogonatopus	99
bridwelli Evans, Aporinellus	185	californicus Ashm., Choriinaeus	58
brimleyi Mitch., Colletes	205	californicus Ashm., Cinetus	91
bromi (How.), Eurytoma	80	californicus (Ashm.), Epyris	97
bromi (How.), Harmolita	79	californicus Cole, Myrmecocystus[s]	151
brooksi Brooks, Stiboscopus	44, 48	californicus Cwfd., Agapostemon[s]	232
bruchi Cwf., Urosigalphus	22	californicus (Cress.), Smicroplectrus	43
bruchi Vier., Heterospilus	36	californicus (Cress.), Xorides	39
Bruchophagus Ashm.	82	californicus Cress., Proterops	31
bruesi Ckll., Melissodes	252	californicus (Mayr), Neivamyrmex	109
bruesi (Mitch.), Lithurge	233	californicus Mues., Apanteles	27
bruesi Whlr., Camponotus	146	californicus Prov., Colletes	205
bruesii (Whlr.), Paratrechina	146	californicus Tow., Priocnemioidea[s]	172
Bruesopria Wing	89	californicus (Whlr.), Acanthomyops[s]	150
brunnea Cress., Lissonota	53	californiensis Cush., Iseropus	37
brunnea (Doutt.), Patasson	63	caliginosa Cress., Melissodes	250
brunneri Vier., Coeloides	33	caliginosa (Cress.), Svastra[s]	254
brunnescens Whlr., Leptothorax[s]	132	caliginosus Cress., Ichneumon	51
brunneus Full., Andricus	87	calipterus (Say), Dipogon[s]	172
brunneus Prov., Caccophagus(!)	84	Caliroa Costa	12
brunnipes (Cress.), Triclistus	58	callicerata Ckll., Perdita	220
bryanti Timb., Colletes	205	Callidites Foerst.	56
buccalis Whlr., Pheidole[s]	120	CALLIDIOTINI	56
buccalatricis (Ashm.), Bucculatriplex	35	Calliephialtes Ashm.	37
Bucculatriplex Vier.	35	calligaster (Vier.), Oxybelus	200
bucculentus Martin, Aliolus	23	Callimome Spin.	73
bulbotibialis Stephen, Colletes	205	Calliopsis Sm.	229
bulbosus Whlr., Camponotus[s]	143, 144	calliptera Say, Microgaster	30
bullifacies Mich., Hoplitis	238	Callirhytis Foerst.	88
bunki Brown, Smithistruma	136	Callitula Spin.	76

<i>calloleuca</i> Ckll., <i>Melissodes</i>	250	<i>Cecidostiba</i> Thoms.	78
<i>callosa</i> Timb., <i>Nomadopsis</i>	229	<i>cellularis</i> "Say," Kief., <i>Parasierola</i>	98
<i>calochorti</i> Timb., <i>Perdita</i>	220	<i>Cemonus</i> Panz.	189
<i>calviceps</i> Cole, <i>Formica</i>	154	<i>Cenocoelius</i> Westw.	21
<i>calypoides</i> Martin, <i>Aliolus</i>	23	<i>centralis</i> (Cam.), <i>Ectemnius</i>	199
<i>cambarella</i> Ckll., <i>Perdita</i> [s]	220	<i>centrata</i> Say, <i>Sapyga</i>	107
<i>campanulata</i> H.-S., <i>Entomia</i>	91	<i>Cephalapis</i> Ckll.	239
<i>campestris</i> Vier., <i>Meteorus</i>	19	<i>Cephalcia</i> Panz.	8
<i>campestris</i> Whlr., <i>Pheidole</i> [v]	124	<i>Cephalonomia</i> Westw.	97
<i>Campoletis</i> Foerst.	60	<i>Cephalosmia</i> Slad.	242
<i>camponoticeps</i> Whlr., <i>Formica</i> [s]	160	<i>cephalotes</i> (Cress.), <i>Perdita</i>	217, 220
<i>Camponotus</i> Mayr	142	<i>cephalotes</i> Holmg., <i>Ephialtes</i>	37
CAMPOPLEGINI	59	<i>cephalotes</i> Schus., <i>Ephuta</i>	105
<i>Campoplex</i> Grav.	59	CEPHIDAE	18
<i>Campsomeris</i> Guér.	107	CEPHOIDEA	18
<i>Campsocolia</i> Betrem	107	<i>Cephus</i> Latr.	18
<i>canadensis</i> (Ashm.), <i>Cinetus</i>	91	<i>cerambidiphagus</i> (Mues.), <i>Bracon</i>	33
<i>canadensis</i> Ashm., <i>Histeromerus</i>	36	CERAPACHYINAE	110
<i>canadensis</i> Ashm., <i>Spathius</i>	34	<i>Cerapachys</i> Sm.	110
<i>canadensis</i> Cwfd., <i>Perdita</i> [s]	223	<i>Ceraphron</i> Jur.	89
<i>canadensis</i> Cress., <i>Arenetra</i>	53	CERAPHRONIDAE	89
<i>canadensis</i> (Cress.), <i>Chalcis</i>	83	<i>cerasi</i> (Fitch), <i>Crematogaster</i>	125
<i>canadensis</i> Mitch., <i>Sphecodes</i>	231	<i>Ceratina</i> Latr.	259
<i>canadensis</i> Mues., <i>Microgaster</i>	30	<i>Ceratinula</i> Moure	259
<i>canadensis</i> (Prov.), <i>Aliolus</i>	23	<i>Ceratochrysis</i> Cooper	95
<i>canadensis</i> Prov., <i>Exenterus</i>	43	<i>ceratoniae</i> Riley, <i>Microplitis</i>	30
<i>canadensis</i> Prov., <i>Leptothorax</i> [s]	134	<i>Ceratoneura</i> Ashmead	66
<i>canadensis</i> Prov., <i>Selandria</i>	16	<i>Ceratopheidole</i> Perg.	125
<i>canadensis</i> (Prov.), <i>Triaspis</i>	24	<i>Ceratopria</i> Ashm.	90
<i>canadensis</i> (Sauss.), <i>Symmorphus</i>	164	<i>Ceratopria</i> Ashm.	90
<i>canaliculata</i> Say, <i>Ampulex</i>	186	<i>Ceratoteleia</i> Kief.	93
<i>canaliculatus</i> Pack., <i>Gorytes</i>	194	<i>cerberulus</i> Emery, <i>Camponotus</i>	145
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